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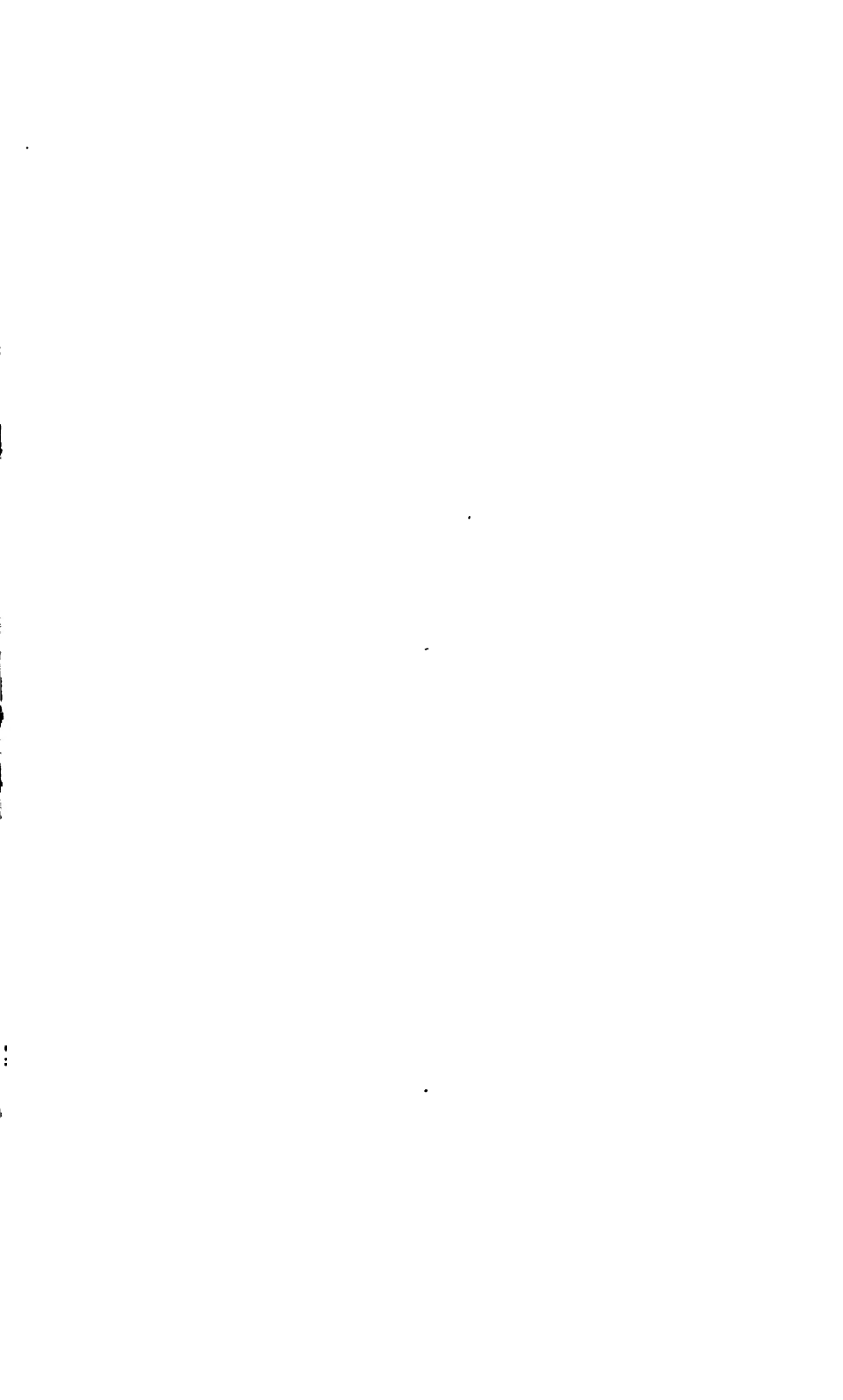
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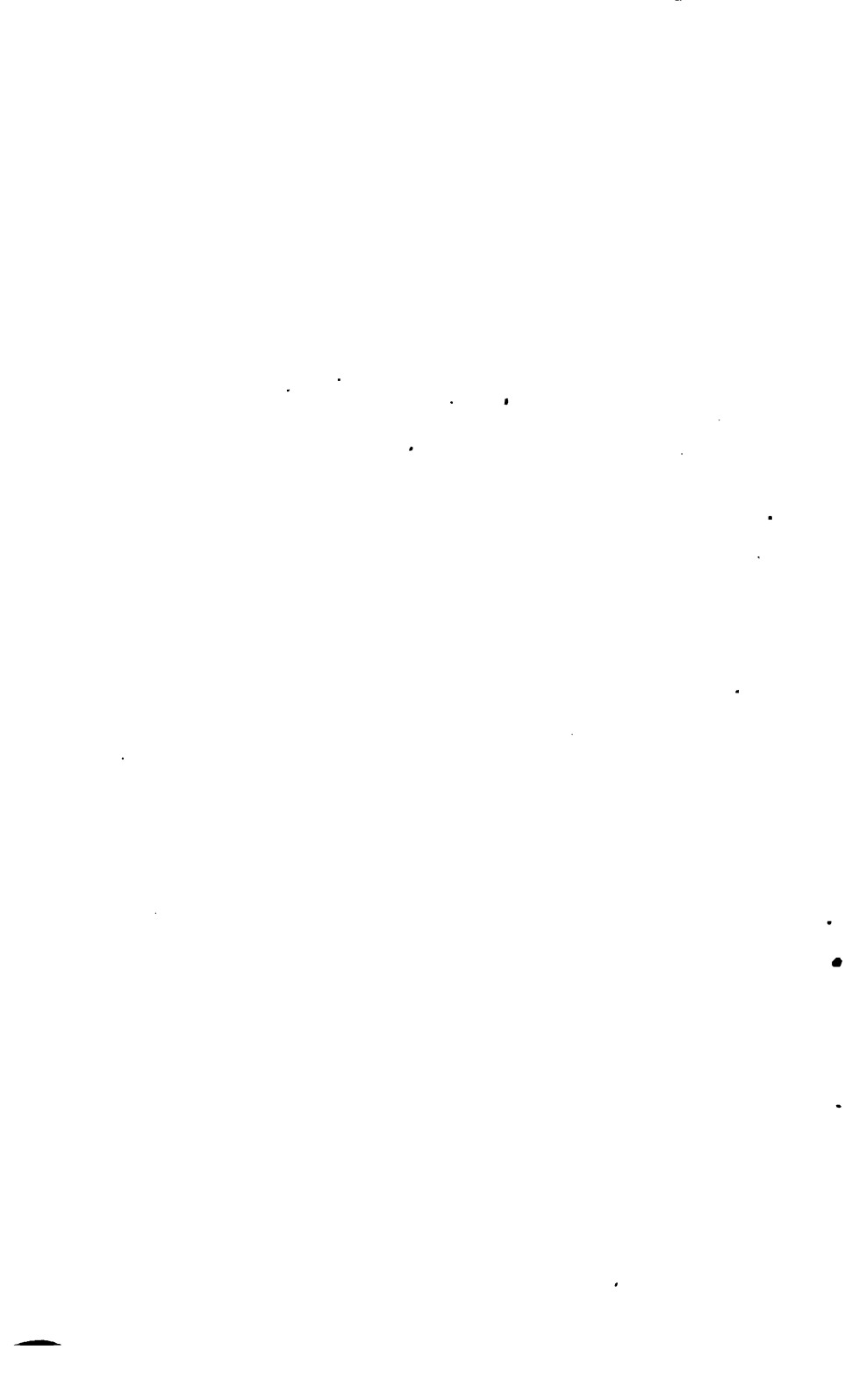
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SCHOOL JOURNAL

ORGAN OF THE

STATE TEACHERS' ASSOCIATION

AND OF THE

SUPERINTENDENT OF PUBLIC INSTRUCTION.

EDITOR AND PROPRIETOR

WILLIAM A. BELL.

VOLUME XLIII.

INDIANAPOLIS :
120 NORTH PENNSYLVANIA STREET.
1898.

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INDIANA SCHOOL * JOURNAL

VOL. XLIII.

JANUARY, 1898.

NUMBER 1.

*THE PRINCIPLES THAT UNDERLIE THE FORMATION OF A COURSE OF STUDY.

LEWIS H. JONES, SUPERINTENDENT OF CLEVELAND SCHOOLS.

The most important single utterance upon the principles underlying the making of a course of study that has yet been made in any country or in any language is, I believe, that of Dr. Harris as Chairman of the Committee of Fifteen. That this report is without serious omissions I cannot claim. That it contains some errors I fully believe. Nevertheless it yet remains the one valid utterance on the education value of the fundamental studies and some of their most important relations and correlations.

The only excuse I could have for re-opening the subject is the fact that a very small man standing on the shoulders of a giant may have a sweep of vision which he could not otherwise obtain. As a member of the Committee of Fifteen I had the benefit of the discussions held at its several meetings. No report, even one written by Dr. Harris, could adequately represent the full and exhaustive discussions had at those meetings. It was wisely determined therefore to limit the report to certain phases of the subject, and to emphasize a few fundamentals, leaving the discussion of details to other hands and to other times. Presuming on an acquaintance on the part of my audience with this report, I shall rather allude to it than quote from it as I need to touch upon kindred topics to those discussed there.

* Read at the City Superintendents' Convention, Indianapolis, November 5, 1897.

A course of study should (1) name the branches to be pursued in the schools for which it is designed, (2) indicate selected portions of these studies, and (3) distribute these appropriately to the various classes and grades of pupils in the schools constituting the system for which the course is prepared.

The naming of the branches to be pursued raises at once the question of education values, and makes necessary as a pre-requisite a rational theory of the true end of education.

The proper distribution of subjects into parts raises two other questions, closely related to each other it is true, but distinctly different in characteristics,—viz.; *first*, the adaption of subject matter to the slowly developing powers of the child, and *second*, the proper correlation of subjects and topics with reference to reciprocal influences during the process of instruction. Re-stated then, the three direct problems are—education values, psychological order of advancement in each study, and correlation of studies.

A proper discussion of education values would help settle the questions of,—what branches of study shall be taught, and what parts of these branches shall be chosen, without for the moment determining the place or grade of any of such subject matter. It is really the question of determining the list of studies, *selected parts of which*, properly arranged, shall constitute the course of study. This is perhaps after all the most completely fundamental of the practical questions of education. Indeed, there is but one other of any kind more completely fundamental; and *it* is fundamental to all human living viz., the *nature* and *destiny* of *man*. The true answer with reference to the advisability of including any branch in a course of study is no doubt involved in its relative value as a means to the perfection of man and the realization of his destiny. This is indeed the question of questions, the profoundest topic of thought that has ever engaged the thinkers of the world. To pretend that it has been solved is practically to say that human progress is at an end. To say that no progress has been made in its solution is to ignore the difference between savagery and civilization. The present age is distinguished above all others by the fact that the search after the truth in this province is more intelligent than it has ever before been. The thinkers of to-day who are working upon this problem are not merely philosophers nor psychologists, who, shut up among their

books, have attempted to think out the answer. They are men who in the midst of affairs, in the midst of human living, are basing their thinking upon the actualities of life. It is true that some of them have become immersed in details, unable to rise through successive generalizations to universal conclusions. Others have doubtless ignored too greatly the facts which have been placed before them. But taking into account all the failures in these directions, it still remains that the last twenty-five years have seen such advancement in the adjustment of educational means to universal educational ends as the world has never before witnessed in any period of its history. The theme is so large that it is impossible to give it full treatment in any paper, report or book. At least it is impossible so to do until the subject shall have been clarified, and the non-essentials of it dropped more completely out of sight.

For the present we must be satisfied in having at one time the emphasis of enthusiasm placed upon one point, and at another time upon a different phase of the subject, and at another time upon still another view, until a larger body of thinkers shall have risen to a higher comprehension of the question. Then the necessary generalizations may be made and a somewhat definite ideal put forward.

The report of the Committee of Fifteen to which I reverted in the beginning, is the first notable attempt to press to solution this question. That its conclusions are partial does not militate against their truthfulness, if we can determine the degree of their partiality. I shall limit myself to pointing out what seem to me to be certain limitations upon the conclusions of that report without in any way questioning the truthfulness, validity or importance of such conclusions as are there announced. In some quarters too much has been claimed for that report. It should be considered merely the discussion of certain phases of this question, instead of the final settlement of the whole. Wherever members of the teaching profession have attempted rationally to investigate the nature of man, they have had recourse to psychology and philosophy. Psychology is to a certain extent the study of the individual man and philosophy of the universal. The nature and destiny of man, however, is but a small part of the province of philosophy; while psychology alone fails to cover the full explanation of the two. It seems to me that many minor

mistakes have been made in all the attempts that have heretofore been undertaken to explain the nature of man through psychology, and I am equally frank to say that all attempts, with which I am familiar, to do the same thing through philosophy have been equally at fault. The difficulty does not seem that untruth has been reached, but rather that there has been a failure to reach the highest truth. In my judgment, this comes largely from an attempt to reach the end through a single one of these branches rather than a happy combination of the two.

The test which the report of the Committee of Fifteen sets up with reference to the admission of any study into the curriculum is substantially this: it must tend to fit the student who submits himself to its influence to live in conformity to the civilization in which he finds himself, and to perform worthily within this organization the duties which fall to him as a member, and to enjoy the privileges which come to him through this membership. This view is dictated, as it seems to me, by philosophy, that is, it is reached by philosophizing, but it is limited, in a way, by political considerations. In fact it is the State's view of public education, rather than the universal view of the education of man. Further, it is the view of the present State and not of the ideal one. These two defects seem to me to be so serious as to lead us to inquire a little more closely with reference to these limitations. This view seems to me to be taken largely from a philosophical study of the adult man. His nature has been studied from a consideration of what he has done in the world. That is, it is a question of deeds—it has been reached by a historical study of the development of the race, from what man has done as contradistinguished from what he could do. It seems plausible to say that the nature of a man is revealed by what he has done. The truth involved in this statement is so great that for the time being it over-shadows the lesser germ of a greater truth. What man has done is the faintest shadow which coming events cast along the line of the future. It is but a hint of what man by his nature is capable. The salvation of this theory of which I have been speaking, at least in the hands of Dr. Harris, is that he does not stop with the consideration of the recorded deeds of man, as taught in history, but does look to literature and art as the sources of the suggestion of what man may do. The theory becomes a safe one when it is followed largely into this new province. Man

considered in history, in literature and in art becomes the man all powerful, the man capable of things as yet untried, capable of a degree of perfection in social and institutional life, which as yet finds no exemplification anywhere in the world. Thus broadly worked out, it seems a safe standard. Its limitations hitherto have been largely that history, rather than literature and art, has been taken as the measure of manhood. The deed has been considered so much more real than the ideal that a coarse realism has clouded the vision. The interpretation which has now clearly begun in this country and in some of the countries of Europe, for the study of the nature of man as to his possibilities is, in my judgment, a movement toward a regeneration of our ideals in this direction. The tendency toward the historical study of this work has been so marked as to turn away a large body of intelligent thinkers who, dissatisfied with the method and the results, have gone perhaps to an equally dangerous extreme. This general study of the race as a means of determining the nature and destiny of the individual man has seemed so far away and so unfruitful that students have been driven to an attempt to solve the problem by the psychological study of man, to a considerable extent the study of the individual man, and last but not least, the study of man as a child, that is, *child-study*. The difficulty of this phase of the study, it seems to me, has been chiefly that its enthusiastic adherents have set a very small thing so near to their eyes as to obscure a large proportion of the universe. Child-study instead of being a solution of the question of educational ideals is practically but a beginning place. The child is *man* in the *germ*, and in so far as the germ is capable of manifesting in full the matured nature, child study is a solution of the question of educational ideals. In so far as any one unacquainted with the history of growth and with the matured grandeur of the oak tree can discern all this by the study of an acorn, thus far can man know the destiny of man by the study of the child. While it is equally true that no one through the sight of the oak tree can predict all its precedent stages with perfect accuracy without having seen and studied the acorn, it will at once be granted that if but one of these two things can be seen, it is much more important to see the oak tree. It is equally evident that a full investigation of the possibilities of the oak tree will include a minute study of such manifestations as lie in the direction of the acorn

watched successively through its processes of germination and growth through successive years to maturity. It is after such study as this that one may lay down the laws of growth, one may arrange for proper conditions of soil and climate and in every way assist the acorn to the realization of its destiny. In like manner, it seems to me, that through a study of the individual child throughout all the manifestations of his nature, as through the successive years he realizes little by little his possible life; that through the study successively of many of these unfolding lives, and through a philosophic consideration of the meaning of race life,—through a happy combination of all these, and by this method alone, will sometime be attained an educational ideal that is universal, and that will admit of individual application to school systems, individual schools and individual children, and all the numerous social relationships involved in systems of education. When this ideal shall have been fully set up and firmly established and clearly taught, each subject of the curriculum may then be interrogated and tested by this ideal. In my judgment the questions will come in the following order :

First. Does this branch of study through its mastery contribute in a substantial way to the furtherance of the developing life of a human being?

Second. In what time of his developing life do the truths of this branch of study have greatest controlling influence over the development and destiny of the human being?

Third. In relationship to what other branches must this one be viewed in order that a given amount of time spent upon its study shall return most to the child in substantial life development?

These three questions in the order named will determine three things. *First*, what study shall be admitted to the curriculum? *Second*, into what grade shall the various selected parts of the subject be placed? *Third*, what correlation shall be made with other branches of learning?

It is not contended that these questions are sufficiently independent that any one of them may be absolutely determined without a reference to the other two. The first, however, is substantially clear from the interference of the second and third. A wise adjustment of the course of study will take notice of the wisest possible compromise among these three principles wherever

they seemingly conflict. Any wise course of action is the result not of following a single principle to its direst extremity, but is rather the taking of such course as is the resultant of the combined influence of all the principles which govern in the province. The best course of study, in my judgment, will be the one which recognizes fully the appropriate influence of each of these three principles.

It will be seen that the pre-requisite knowledge to the making of a course of study is derived chiefly from three provinces; psychology, the study of the man individual; sociology, the study of man as an institutional being; and philosophy, the study of man's destiny. Some men have intuitive knowledge of these things; others an acquired knowledge, approaching more or less nearly to clearness, while others with or without study can never reach sufficiently clear conclusions to be safe guides. In this matter, when the blind lead the blind, the usual consequence follows. Only here the consequences are serious and far reaching. The most hopeful sign to my mind is the tendency which I have herein so persistently advocated,—that the studies shall be challenged as to their capacity to educate the child,—that no simple beauty of the subject as a subject, shall be allowed to smuggle it into the course of study, until it has proven its capability as a factor of true education. The prominence given to child study in methods has reacted favorably upon this question of education values. No branch is in these times admitted to a course of study because some enthusiastic exponent of it makes it appear interesting. It must meet the serious question of what part it can serve in the educational development of the child. And with this advancement we have come to understand that education is not alone the development of an individual as an individual, nor the mastery of external nature, as the scientist would sometimes almost persuade us, but is, in addition, a movement toward the study of the conditions and processes by which the individual finds his best interests in co-operation with his fellows, under the forms of institutional life which sets ideals and develops possible enjoyments, achievements and satisfactions not found in the history of the uncivilized. The chasm between the man individual and the man institutional, deeper than between Dives and Lazarus, must be bridged over by education, and the individual must be made to realize in a high sense that it is through co-operation

with his fellows that he is able to lay under contribution to himself the whole world of nature and the vast armies of industry. The savage believed that the strength of his slain victim entered his own right arm ; but the member of the social whole who intelligently co-operates with his fellows, unites to his own strength that of the race. Harmonious co-operation with his fellows in the various institutions of life enables him to share with them the physical and spiritual wealth of the race.

Three lines of study seem to me necessary to produce in the pupils of our schools these enlightened conditions which we group together under the general term education ; and the experience of all past time is well expressed by the requirement of the state that whatever else may be taught in the public schools these three branches shall not be omitted nor neglected.

These are, first, Mathematics typified by Arithmetic ; second, the study of natural forces, typified in the lower schools by Geography, and nature study ; and third, the study of Man or the Humanities.

The education of a human being by the use of these subjects of study, though a complex thing viewed from our point of view, is still a unified process as viewed from the nature of the mind which is itself a unit or essence. The mind being one thing and not many things, can have but one great line of development, though this main line may have many branches. It is possible in thought to separate the results of education into somewhat separate effects, which after all are not so much different aspects of the same thing. In this way we think of education as the process of producing in a conscious and intelligent manner the following results : (1) Development of the mind, through furnishing spiritual nourishment, to the end that the spirit, or mind, may unfold its powers and become in fact what it is from the first in potentiality, so far as growth can thus perfect spirit. (2) Moral tone or ideals and purposes such as shall be in accordance with the natural dignity of the human spirit. (3) Inculcation of ideas such as shall make the person intelligent as to the forces of nature and social institutions. (4) Such repeated exercises, or training of the mind in fundamental processes as shall render it facile and prompt in any required action. These four results, —development, ideals, intelligence and training,—represent in a rough way the total effect, which being realized in the individual

we rightly call education. It is in this sense that the state must educate, if it would discharge its duty to the individual and best serve its own interests.

Now, the various topics comprising the three classes of themes above suggested, need to be examined with reference to their adaptation to the ends of education, viz :

1. Do these subjects individually and collectively furnish spiritual nourishment, adapted to produce mind growth?
2. Have they in them the elements of the necessary ideals of life and conduct? *
3. Do they furnish those ideas which, being attained, make their possessors intelligent?
4. Does the mastery of these branches furnish sufficient activity or training to give facility in the fundamental mind processes?

To answer in detail these four questions by minute analysis of these subjects would be to write a treatise on education values. Nothing more will be attempted here than a hurried general discussion, merely opening the subject for thought; while lack of time will preclude further or detailed study of either grading or correlation of studies.

In order that man shall be able to achieve ends and realize purposes it is necessary for him to employ agencies and so combine and control these agencies as to make them subserve his purposes. One of the necessary steps in making himself a master of agencies for any purpose is his ability to number them. This is the key to all combination and correlation toward effective ends. If the objects representing the agencies or representing obstacles be physical, it is essential besides numbering them to be able to measure them. It is necessary even to be able to number and measure the forces themselves, and in a slightly different sense if these agencies or obstacles be spiritual in their nature, in order to combine them effectively or oppose them successfully, one must be able to number them and to measure their grades of efficiency. These processes of numbering and measuring are processes of a mathematical character, and in following out more fully this mastery of agencies the student must be led successively through the various grades of mathematics from arithmetic upward. The kind of intelligence which I have just described is of a very high order. It marks very largely the distinction between the non-

progressive animal, and man, making the latter able to turn all the forces and interests of the universe to his own uses. It is in this way that mathematical studies answer the question as to whether they make those who master them intelligent. In reference to the question of spiritual nourishment, mathematical ideas do not make such strong claims as do many other studies. Their accuracy, however, makes them fruitful in the production of ideas of morality, truthfulness, punctuality, and such other moral qualities as go to the making up of useful character. The facility of mind action produced by much repetition of these mathematical studies is remarkable and perhaps exceeds that given by any other class of studies; but the mathematical mastery of agencies does not give complete control of them. There is a question of quality involved. The capabilities of any agent whether it be material or spiritual involve a consideration of its attributes, and so it is not enough that one may be able to number one's agencies or to number the obstacles which one is called upon to meet but one needs further to know what their attributes of capability are. In reference to physical things, these matters are determined through what are known as the natural sciences, physics, chemistry, biology, etc., the elements of which are in most courses of the study embodied in the term nature-study. The complete mastery therefore of external nature requires that the objects and forces be studied mathematically in order that their capabilities may be fully known. Thus is man made so sufficiently intelligent in reference to external nature that the whole physical world is at his service.

The third line of studies is the study of the man. This divides itself at once into three divisions. (1) The study of the man as an individual, carried on entirely through one's own consciousness. (2) The study of man in general—history the science of man's deeds, inferring the capabilities of man from a study of what man has done. In connection with the study of the state historically, other institutions which have been created by man naturally come in for consideration, until at last this becomes the study of the man in institutions, so far as this is made manifest through the study of the institutions as the product of his efforts. (3) The study of man as expressed in literature and art, the possibilities of man,—man as he may become, considering his aspirations and hopes as well as his achievements. The typical

study of the first of these three lines is English Grammar and Composition, that is, the study of the mother tongue. In the early years of the course this takes the form of learning to spell, to read, to write and to compose or to construct discourse ; while a little later it assumes the peculiar form of grammar—the study in which the child having acquired the use of language as an instrument of expression, comes to examine into the adaptation of this instrument to be the means of a full expression of himself—to find what laws he must obey in its use in order to make it most serviceable to him. Under the forms of spelling, reading and writing, the subject is justified in school on the ground that it is the means or tool of learning in all other branches. The written or printed language preserves the results of human learning, and to learn to read is to have the key to human learning. It is the human learning thus unlocked to the child which gives him the culture, and not the process of learning to read as formally practiced in all schools. This distinction marks nearly the difference between the technical drill in learning words, enunciation, pronunciation, modulation, etc., by the use of a school reader, and the use of general books in literature, science and art, as supplementary reading.

The distinction has partially faded out recently by reason of the fact that school readers have themselves been constructed on the plan of having all the practices of learning to read given upon reading matter of vital worth, so that the monotony of mechanical drill may be somewhat enlivened by the interest created in the thoughts found in the reading drill. Let us never make the mistake of supposing that with the average child the drudgery of drill on pronunciation and articulation, enunciation, modulation, etc., can ever safely be entirely omitted. Many of our children show lamentable lack of decisive drill upon these purely mechanical features. It is at this point that the critic of the public schools is easily able to push the shaft of his criticism between the loosened bars of our somewhat defective armor. The pupils of the public schools do not spell well nor read well, nor cipher with alacrity, accuracy and dispatch. And it does not help us much that pupils of the private schools do no better. No sensible man ever rejoiced over having out-argued his opponent by crying "You're another." It is better to face the facts, reason calmly on their causes and then seek reasonable remedies, so far

as the defects are remediable. Sometimes the charge that children can not spell well, nor read readily, nor write rapidly and legibly, nor cast accounts accurately and quickly, comes from the business man whose assistant the child has become in an attempt to earn money. Frequently this attempt to earn money is made under the dire necessity of grinding poverty. But the employer forgets temporarily that the child is young, and he is naturally exasperated because of his lack of preparation; and it frequently happens that the complaint is out of proportion to the actual deficiency. But after all this has been granted, the fact comes back to the teacher as one of the gravest problems of his thought provoking profession. When the teacher thinks candidly he agrees that the child should as soon as possible—how soon, alas! we can not say—as soon as possible, be made able to read, write, spell and calculate, not alone because these are the keys to higher learning, which they are, but also because to many they become the immediate means of becoming self-helpful and self-sustaining in a financial way. Truly this is in itself no small thing. To be able and willing to earn a living honestly; to be able to earn money honestly and to spend it wisely is to be in the way of much high moral worth; and when this honest earning of money, as in many cases, is done for the purpose of sharing it with others, the morality of it becomes touched with emotion and raised to a higher level. This kind of independence though it be produced by a very elementary education is worthy of the best efforts of the best teachers. The teacher should not be a party to the current feeling which prompts some parents to stop the child from school so soon as he has through a little learning become able to earn money; but on the other hand she should strive earnestly to teach the child those things which will enable him to earn something when the dire necessity of grinding poverty makes it necessary for him to do so, for himself or those dear to him by family ties. At the same time the motive of self-improvement in higher things should be implanted so that nothing short of dire necessity shall stop him from pursuing his education toward more liberal ends. The grave danger is that narrowing down education to simple practical ends, we shall leave the child without ideals of conduct and motives to high living. In these cases the state's object in educating the child is not reached by mere ability for self-support, since when he is grown to man's estate

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he is likely to be a costly person through casual disregard of law or its open defiance. So it is really after all to the higher uses of reading, writing and arithmetic that the state looks—their part in creating a general intelligence which shall make the person educated a part of the better element in making and enforcing good order in the state.

It is thus that reading makes possible the higher forms of human social organization and it is in this high phase of its use that the state is directly interested in having the subject well taught. It is in its highest form and finest uses that language must necessarily refer to inner experiences of more than usual moment. These are of two classes—first, keen and decisive distinctions among our experiences, relating to differences of quality, time, number and sequence among the experiences. These are the foundations on which the distinctions of grammar are founded and must, in order to make plain the reasons for grammatical distinctions, be definite and distinct in the individual.

No child ever saw the need for the distinction of modes and tenses in grammar who was not already familiar with his own internal moods and tenses. There is no possibility of understanding rightly the subject of grammar without long continued introspection. This constitutes its difficulty of acquirement for the pupil and difficulty of teaching for the teacher.

But second, besides these distinct, decided, individual, commonplace experiences of which correct or grammatical language is the appropriate expression, there is another class which, though they are experienced by the individual as his own, have value and meaning for others—have a higher and more nearly universal application—which are full of suggestion, and have the power to lead others into similar experiences and to bind all together in a spiritual federation by the delight and sense of worthiness which they raise among those so fortunate as to live within their enchanted influence. For the expression of deeds, language takes on forms not alone of correctness, but of beauty and appropriateness as well—and grammar has thus given way to rhetoric and the higher forms of structure in discourse. This marks precisely the passage over from man the individual to man the universal, who perpetuates himself in literature—a form of art growing out of language itself.

This is the idealized and universalized form of language study,

and in its best phases by all odds the finest and highest study ever directed by any teacher in any school.

It is in literature that man's nature as distinctively human is presented. Literature portrays the social possibilities of man in attractive forms and its study cultivates the inherent tendency to congregate under social organization, and lays deep and broad the foundations of the modern state. The state can not regard well its own life without making practical arrangements to teach to its youth the grand social and political possibilities which lie imbedded in human nature. The state needs in its youth and future citizens, high ideals, sensitiveness to moral influences, capabilities of social enjoyment, a keen sense of honor and an unconquerable determination toward heroic deeds. These tendencies are cultivated by the use of our best literature. The modern school has made two very marked advances, both of which, however, are capable of great improvement, in the line of instruction in literature. One is the use of a better class of extracts for use in the school readers, even in the daily drill in reading; the other is the use, for supplementary reading, of entire literary productions. It is in the latter that the most distinct advance has been made. In the daily drill in reading, the continual correction necessary to secure improvement in vocal expression necessarily interferes with the full enjoyment of the thing read, and prevents the fullest spiritual growth that might otherwise come from the studious contemplation and intense elevation of mind incident to a better treatment of such theme. But there is from this source some gain which is in a sense clear gain, since these fine selections, involving as they do those moods of mind which are above the dead level of daily living, are therefore the best opportunities for a cultivation of the power of vocal expression; so that whatever we secure of spiritual elevation, during the vocal drill, is in a sense so much clear gain in education. It is, however, in the supplementary reading that the teachers and pupils have the opportunity to live together the idealized forms of social life regardless of the exact technical corrections which would detract attention from the thoughts that stir the feeling and refresh and renew the springs of life. How I long for the time when, by still better methods, the pupils of our primary schools shall be led to master more rapidly the colloquial vocabulary and be introduced at an earlier age than now to the

best that has been thought and felt in the world, and when they shall learn to read by being led on by the irresistible charm of knowing and feeling as the great and good have known and felt. We have not yet brought to bear all the possible forms of interest in the teaching of reading in the schools. Besides this high social culture which arises from a right study of literature and which, therefore, is of such immediate importance to the state there is a personal value in it because it is such effective study of human nature. The correct understanding of human nature in general and its quick interpretation in individual instances is the highest and at the same time the most distinctly practical result of education. To the business man it is essential to success; to the subordinate in any association it is essential to the promotion of cordial relations with his superiors; to the person who has the supervision of others, it is the key to that helpful and inspiring relation without which one can not command respect and obedience. In short, wherever man proposes to live as man and not as an animal, wherever he proposes to combine with his fellows and thus share with them the material and spiritual riches of the world, the power of reading readily and correctly human nature is a prime necessity; and no education for practical life can be considered at all complete which does not thus fortify the pupil.

History of our own country is by common consent a proper subject of study. But one who would teach well the history of his own country must see the essential relation of his own country to the other nations of the world, and know well the general nature of history as a subject of study. History itself is the subject in which man is able to look at himself as he has expressed himself in deeds—as literature shows him what he is capable of doing in his best moments. History shows him what he has actually done, and assists him to gain practical wisdom from successes and failures of the past life of the race. It is the one subject which above all others represents man exercising his will. In this respect it bears a curious resemblance and a curious contrast to the study of the mother tongue. In language study it is the intellect that is supremely active, the thought which gives everywhere the key to interpretation. Whenever feeling asserts itself in language it is always as an assistant to the intellect. In the early steps of the study it is always the individual interpreting himself, which gives the key to the interpretation of the language

of another, and it is only in the higher range of language study that we reach the man universal, projecting himself as a social being into his ideals and creations. In history, it is always the doing that is prominent and whenever feeling is found it is assistant to the will. As in language, so here, the first element is individual—the study of biography—then men co-operating to social ends in accomplishing that which alone man can not reach. It is this view that the child should throughout his course in history get—first, he should study the biographies of great men and women, getting an insight into noble lives, deriving inspiration to noble action, securing ideals of high achievement. As he proceeds in his studies he should become acquainted with the methods by which men have combined to form, perpetuate and improve governments. The study of the great men in history leads directly into those great movements in which great men have been the shaping instruments of their time. One who should make a thorough study of the lives of three Americans—Washington, Lincoln and Grant, together with the political events in which they were engaged and the political principles for which they stood, would be a safe person into whose hands to place the free ballot, whether he be a man or she be a woman.

The history of our country and its eminent men and women is pre-eminently the study which prepares for the practical political duties of our time and nation. But while teaching history as outlined in our course of study we must not forget that the past leads up to and makes intelligent the present. History, which has been described as past politics, is, therefore, closely related to civics or present politics.

David Starr Jordan, president of Leland Stanford, Jr., University, in a recent article in the *Forum* on "Pettifogging Law Schools and an Untrained Bar," says: "There can be no political conscience except as an outgrowth of political intelligence." It is in this view of the case that we have placed in our course of study, even in the lower grades, the elements of civics—relating first to the forms of local government, afterwards enlarging to state and national institutions. Even with high notions one needs to be intelligent. To right political action, political intelligence is essential.

The state in its efforts at self-preservation and self-reformation and self-improvement must create through the public schools

a safe degree of political intelligence. Thus shall the state show its own value by enabling the pupil to see the limits of individual effort and to discover the true nature of freedom—the liberty which comes of just laws enforced by a strong and beneficent government ; and finally to behold the spectacle of himself, the individual, reaching into all lands and sharing all climes, re-enforcing his own puny strength by the combined energies of the race, acting in concert under the benign influence of regulated order, protected by law.

THE COUNTRY SCHOOL PROBLEM.

Editor School Journal, Sir:—I have been for several years a subscriber to your JOURNAL and have noted much of interest in its pages, but feel impelled to say that not all of its articles are equally edifying.

There is an article in the September number entitled “ Teaching in Country Schools,” that pre-supposes that country teachers, as a class, know nothing ; and that is the nature and spirit of the “ instruction (?) ” we are compelled to submit to at county institutes as well.

Such “ instruction (?) ” usually originates with people whose experience with the real difficulties of the country school has been followed by several years’ work in graded schools until their recollection has become very hazy. Their view is taken up and echoed or rather reflected by a class of luminaries who having no light of their own still wish to seem to shine. The effect is about as brilliant as moonlight on a tin pan.

The truth is that we hear such stuff as is presented in this article about five times a week on occasions of county institutes, read it in reading circle books, until if we have any native ability at all, we certainly ought to understand it.

But country teachers are not any duller than the average city teachers. They teach in the country because they are usually nearer home, and further, because they wish more freedom than they can have in cities to direct their work. At the same time their work presents its own difficulties. The country school is usually gathered up from four sections and many pupils come about two miles to school. The roads are often such as to bar the attendance of the small pupils, and the severity of the weather

frequently affects the attendance. Often urgent farm duties keep the older and stronger away until crops are harvested, and occasionally these same pupils remain out a few days at a time to market the crops. The country school varies in numbers from ten to fifty or sixty. The average is about twenty-five or thirty. In the very small school where the disposition of the patrons is right, individual instruction is very nearly possible. But in a school of thirty-five there are pupils of every *intellectual* grade, and they are in every grade through the eight common branches or through the whole course. In much larger schools than this, the best, most energetic and experienced teachers can not do the work in a manner satisfactory to themselves. The simple fact is that until our schools are organized on a central school plan whereby children in the country can be taught in large classes as they are in cities, city methods can not be employed, and advice from such sources is simply annoying to the teacher who meets the difficulties in the field and uses his own resources to make the most of circumstances.

The course of study embraces more than can be done and as if we were not sufficiently crowded there are those who would still further load us.

This article is written in the light of seventeen terms' experience in country schools and constant association with country teachers whose experience has been the same as my own.

If you have a writer who can tell us how to meet the difficulties and do the work required in the State manual, give him some writing material and set him to work, for the majority of your patrons are country teachers and they have the most difficulties to meet.

Yours respectfully,

Burnettsville, Ind.

S. W. RIZER.

CLASSIFICATION IN COUNTRY SCHOOLS.

A. C. SCAMMELL.

"The way I did," if one can pardon the egotism, has more of certainty about it than "the way you ought to do."

One September I found an ungraded school of thirty-five pupils arranged in twenty or more classes. A few of the children, who received help at home, had studied through the long vacation with a view to promotion. Of these, such as were unable to enter

advanced classes had asked that new ones be formed. As a result of this practice, classes of twos and threes had been added to the crowded program each term.

The first day I assured the vacation aspirants that no new classes would be made for them, but that they might, for a week, enter any already formed. The first week I did not "teach" the twenty classes; I "heard" them. The second Monday I "organized." No clergyman ever had a bluer Monday than did we—my pupils and I. Not azure blue; oh, no! There were pouts and protests, and "My mother says—" A few happy disappointments came, too, when some of the last were called to be first.

There had been six reading classes. These I reduced to four in the morning, and by providing easy sight-reading, to two in the afternoon. The Fifth Reader was ruled out. Two classes in one book were not allowed. Where all in a class were not equally good readers, the more difficult lessons were passed over at first. Ability to understand and to enjoy, rather than to correct enunciation, was made the basis of classing. One Second-Reader pupil passed up to the Fourth Reader with profit to herself and to the class. This permission to pass over a Reader when merit warranted it was a restorative to parents whose children were put back. Having "finished" the First or the Second Reader during vacation did not count. The pupil must go over the ground with the teacher for the phonetics, the word-building, the picture-reading, the oral and written reproductions and much besides.

Nearly every section of arithmetic was represented by a class, because the last teacher's conscience had tied her to precedents. "How could your teacher ever hear so many classes?" I despairingly asked. "She didn't hear us every day; she looked at our 'zamples and then we 'rased." So many problems worked out by Chinese imitation of the written pattern, but without that evolution of thought that marks real progress! These children had been housed within their text-books from the beginning; I turned them into green pastures and they were refreshed.

Leaving out the children in simple number work, I resolved the school into one grand fraction class. For a time the three different grade arithmetics were opened only for reference. Now there isn't a needful rule in fractions that Autumn has forgotten to write on her plants, fruits and insects. Flower petals and

stamens suggest the largest common denominator that need ever be used. We made fractions homelike by supposing problems. We harvested and sold at good prices (on paper) the crops of all the farmers whom we knew. We measured, bought and sold the land about the schoolhouse like old speculators. The last year's town report was brought into school and made a practical arithmetic wherein we learned a deal about town affairs. We learned economy, too, by reckoning our home and school expenses. Decimals and the simpler rules of percentage came into our work. We did everything by fractions.

At the close of the term, more real arithmetic had been gained, and more general knowledge stored, than would have been possible in a year of the old way of study. Not that the teacher was so wise; she had simply been driven into the better way by her repeated sad failures in the old methods. During the succeeding term other parts of the arithmetic were treated in the same way with the one general class. Were the parents pleased with the innovation? Of course they were pleased, since "nothing succeeds like success."

In the winnowed essentials of arithmetic now fast coming into use there is scarcely a problem that can be wisely omitted; but we think that new problems made to meet the ever new needs of the pupil should be inserted in every arithmetic lesson taught. Why is not a daily arithmetic of present living questions born of the changes of the day, just as needful to the keeping abreast of the times as the daily newspaper. General information, given the school as a class, tends to that unity of interest among the pupils always so desirable.

I called my geography classes in from all over the world, and as good patriots should, we started out together from our own state to visit in natural order each section of our country. We lingered long enough in our own Connecticut valley to learn to love her intelligently and well. Lively geography walks took the place of restless schoolroom sittings; illustrated tourists' books supplemented our text-books. When once we centred one of three stars lying across the Milky Way and began to see our own neighborhood wonders, our eyes were anointed to see clearly, in the reality or in the fancy-brightened page, other wonder-works. After leaving our United States, we visited not the rest of America, but we crossed the Atlantic, to England first, then to the continent.

We studied geography and history together, and we studied them by links. It did not matter that we studied from different text-books. So much more was the variety and the call for comparisons.

The beginners in geography began; the order being, the schoolroom, the school neighborhood, the way leading from school to home, the home neighborhood, the town.

In language, oral and written reproductions of simple incidents that the children had witnessed, heard or read, afforded sufficient work for beginners. The remaining pupils formed the one higher class. I do not see how language with older pupils can be separate from literature.

I think that the current events of the day should be the basis of more language work than should the lessons in the text-book. There is no surer way of interesting children of ten or twelve years in these events than a comparison of written opinions with those of the oldest pupils of the school. Hence the expediency of the one-class method.

Children absorb by listening, and each pupil-teacher, may impress some portion of truth that the general teacher fails to make clear. "I was not idle; I was busy listening," says the boy in the lower class. "But you should attend to your own lesson." Ah, but wasn't the other his own lesson, since he enjoyed it so much?

A little more of the family life is needed in the ungraded schools of to-day, a sitting around the one home table, with happy leisure for visiting as well as for partaking.

Generalization of work prevents that nervous hurry that is the foe of school comfort. Ten class periods a day in the most miscellaneous school should suffice. Thus time is gained for the "children's hour," in the school-home, the hour whose memory shall sweeten many another hour in that long aftermath—the trying school of life.—*School Education.*

Who comes dancing over the snow
His soft little feet all bare and rosy?
Open the door, though the wild winds blow,
Take the child in and make him cozy.
Take him in and hold him dear,
He is the wonderful, glad New Year.—*Dinah Mulock Craik.*

DEPARTMENT OF PEDAGOGY.

THE TEACHING OF NUMBER AS RATIO.

DR. EMERSON E. WHITE, COLUMBUS, OHIO.

The desire to be hospitable to all new theories and methods doubtless accounts for the silence of educators respecting the recent departure in teaching number as ratio. It is possible that the idea of ratio has not hitherto received sufficient attention in arithmetical instruction, and so long as experiments are made to ascertain what is possible and feasible in this direction, no one wishes to call the new theory in question. But the assertion that all instruction in arithmetic is erroneous that is not based fundamentally on ratio, justifies an earnest inquiry as to the correctness of the ratio theory.

It may be true that every abstract number *may be considered* a ratio, but this is not the idea of number first possessed by children or by the race; nor is it the sense in which the term number is generally employed in mathematics. Permit me to call attention to a few facts.

1. The idea of number that is first in the mind of a child, as well as in the mind of the race, answers the question, *How many?* The first idea of number in the mind is a *collection of ones*. The idea of ratio is much later in its appearance. The child perceives that it has one mouth and two eyes, one nose and two ears, one head and two arms, two legs, etc., long before it has a glimmer of the idea of ratio, much less that the ratio of two equal quantities is *one*. There is nothing in the number records or present experience of the race which shows that its first number ideas are ratios. It may be confidently asserted that every person who reads these lines had not only an idea of number but of many special numbers before he had any idea of quotient or ratio. These facts show that a number is not necessarily a ratio. The conception of a number as a ratio includes the idea of number and the idea of ratio.

2. The number ideas which first arise in the mind are occasioned by the phenomena of nature, or, if preferred, by environment and subjective experience. Nature occasions ideas of number by presenting to the mind one and more than one (many),

objects or experiences. The mind discriminates between one and more than one, and the idea of number arises. The moment the mind perceives the number distinction between one object and two objects, it has the idea of number. This does not involve the idea of ratio. The number of objects in a group or events in a succession is gained by *numbering the group or succession*. The mother knows she has five children and the boy perceives that the cherry cluster has six cherries in it ; that the bird's nest has four eggs in it, etc. Nature presents to the mind groups of objects *to be numbered*, and thus teaches number, and the number thus learned is a *collection of ones*, not a ratio. I have a suspicion that nature is a much wiser teacher of primary ideas than dabblers in philosophy.

3. The number one can not have its *genesis* in the mind as the ratio of *two* equal quantities, for this involves the absurdity that the idea of "two" is in the mind *before* the idea of one. How can the mind ~~compare~~ *compare two quantities* before it perceives that *one quantity and one quantity are two quantities, i. e., that two is one and one—a collection of ones*. Nor is the difficulty obviated by leaving out the idea of "twos" and simply comparing equal concrete magnitudes. In the absence of the idea of number the *ratio* between the equal magnitudes is not conceivable, for the idea of ratio involves number *representatives*. In the absence of number they are simply known as *equal* and three quantities may be equal as well as two. A philosopher may see or think he sees that the ratio between the two eyes in his head or the two ears on his head is the number one ; but ordinary infants do not have the shadow of such an idea ; and yet the four-year-old infant knows he has two eyes and two ears as certainly as the philosopher.

4. The theory that every number is a ratio excludes all *concrete numbers*. Every ratio is a quotient and every quotient is abstract, and hence every ratio is necessarily an *abstract* number. Take, for example, the concrete number 5 inches. It is clear that 5 inches is not a ratio, nor is the "5" in the expression 5 inches a ratio. It is true that $5 \text{ times one inch} = 5 \text{ inches}$, and that the "5" in the *first* member of the equation ($5 \text{ times } 1 \text{ inch}$) may be considered a ratio ; but the first member of the equation *expresses a process*, and the second member (5 inches) is the *resulting number*, and this is not a ratio, but a collection of *concrete units*.

No theory of number that excludes concrete numbers can be a true working theory for primary instruction in arithmetic. Concrete numbers have a large place in the child's experience, and they should have the first and the chief place in number instruction. It may be added that a concrete unit is not necessarily an object that can be seen or touched, or even imaged. It may be a period of time, the duration of silence, a power of the mind, an idea or thought, a feeling, a wish, etc. Nor do all concrete numbers have a unit that is definite in consciousness. The unit is often as vague and indefinite as the number which it measures.

The above facts clearly show, as it seems to me, that the theory that all numbers are necessarily ratios is philosophically erroneous. If this conclusion be true, it follows that the basing of primary instruction in numbers on this theory is *an error in pedagogy*. The child's ideas of number do not involve the idea of ratio, and nothing can be gained by forcing the idea of ratio into early number processes. Further, since the ideas of numbers as collections of ones are acquired before the idea of product and the idea of product before the idea of quotient; it seems to follow as a sound pedagogical principle that factor and ratio ideas and processes should be taught *after* the child has clear ideas of primary numbers and some skill in numbering objects, if not in combining and separating numbers. This early instruction in number should not deal too exclusively with objects that can be seen and handled. It is easy to make number lessons too sensuous, as well as too abstract.

But I shall not attempt to pass judgment on what is called the ratio method of teaching number. In actual practice a method is often much better than the theory which it is supposed to embody. Beautiful lessons in form and measurement can be given to young children, but in such lessons, when not made artificial, number is incidental. The measurement of lines, surfaces and solids, and the relations thus disclosed, belong primarily to geometry—the science of *space* relations, and may be made an important element in form training. Arithmetic deals primarily with *time* relations, and it would seem to be an error to make space relations the chief source of the child's ideas of number.

Permit me to add, with no special reference to the "ratio"

method, that the early forcing of abstract relations and logical processes upon young children has been a *wide and serious error in primary instruction*, especially in arithmetic. In the past forty years, I have seen a half score of new methods of teaching number to young children, each attended with exhibitions of wonderful attainments. Forty years ago mental analysis was the hobby, and even primary classes were put through persistent drills in analytical reasoning. The marvelous feats in such reasoning by young pupils occasioned a genuine pedagogical sensation! An excellent training for pupils twelve to fourteen years of age was forced upon children as early as eight years of age. What was the result? Over thirty years ago one of the very ablest mathematicians in the United States, Dr. Thomas Hill, the President of Harvard College, [*Ohio Educational Monthly*, pp. 5-10, 168-173. Vol. II.,] with unusual facilities for ascertaining the facts, published the opinion that this early training in analytical reasoning had not only been fruitless but "an injury to pupils." Pupils who were marvels in mental arithmetic at nine years of age became indifferent, if not dull, at fourteen. Teachers in grammar grades were surprised at the weakness of pupils in written arithmetic who had been prodigies in mental arithmetic in primary grades.

The Grube method, though not so great a pedagogical sinner, has had a similar history. What superintendent or teacher has found in the fifth or sixth school year arithmetical skill or power that could be traced back to the Grube grind in the first and second school years? Who now regrets to see the method retiring from the primary schools which it has so long possessed?

The forcing of young children to do prematurely what they ought not to do until they are older, results in what Dr. Harris calls "arrested development," and whether this be due to exhausted power or burnt-out interest, the result is always fatal to future progress. The colt that is over speeded and over-trained when *two* years old, breaks no record at *six*. The same is true in the training of young children. There is such a thing as too much training in primary grades, an over-development of the mental powers, especially of the thought powers, including the reason. A little child may be *developed* into a dullard. More natural growth and less forced developments would be a blessing to thousands of young children. It is not what the child *can* do

at six or seven years of age that settles questions of primary training, but what he *ought* to do—*i. e.* what is best for him to do at this stage of school progress.

The position has never to my knowledge been questioned that the pupils in our schools pass through as they go up in the grades, *three quite distinct psychic phases*—a primary phase, an intermediate phase, and a scientific phase. A clear recognition of these phases, with their characteristic activities and attainments, has resulted in fruitful reforms in school instruction, especially in primary grades. The tendency just now in some schools is to go back to the theory that an infant is a little man capable of casual reasoning, logical inferences, and philosophic insights; that he can not only understand but can appreciate the highest literature!

For one, I am very thankful that I was not forced when an infant over these elaborate "development" courses; that when a child I was permitted "to think as a child" and was not forced to think as a philosopher.

A few months since, I witnessed some number exercises in first and second grades in a western city. The drill in the second grade (early in the grade) was called a "percentage exercise" though there was not a trace of percentage process in it, the only hint in this direction being the word "per-cent" at the beginning of each exercise and repeated at the close. The pupils recited from a written chart with remarkable facility and enthusiasm, and yet I left the room feeling sorry for the little ones, and with an earnest wish deep in my heart that every child could reach eight years of age ignorant and innocent of the word *percent*. and its cabalistic sign (%).

Were I to be responsible for a child's arithmetical attainments at fourteen, I should insist that his training in number the first three years of school be made as natural and simple as possible, and kept largely free from attempted insights into abstract relations and premature efforts at analytical and logical reasoning, and I should strongly hope that he might be permitted to reach the third school year unhampered by such logical terminology as "because," "whence," "hence," and "therefore." If my pupil, at the close of the third school year, could add, subtract, multiply and divide simple numbers (expressed say by one to five figures) *with facility and accuracy*, I would confidently guarantee his future progress and attainments in arithmetic. Were I to be

personally his teacher in grammar grades, I should be delighted to find a few processes, principles, and applications out of which the juice had not been sucked in the lower grades.

LEND A HAND.

(This department is conducted by Mrs. E. E. Olcott.)

*"Look up and not down,
Look forward and not back,
Look out and not in;
Lend a hand."*

THE DUEL.

The gingham dog and the calico cat
Side by side on the table sat :
'Twas half past twelve, and what do you think,
Neither of them had slept a wink,
And the old Dutch clock and the Chinese plate
Seemed to know as sure as fate
There was going to be an awful spat.
(I wasn't there—I simply state
What was told me by the Chinese plate.)

The gingham dog went "bow-wow-wow!"
The calico cat replied "me-ow!"
And the air was streaked for an hour or so
With fragments of gingham and calico,
While the old Dutch clock in the chimney place
Up with its hands before its face,
For it always dreaded a family row.
(Now mind, I'm simply telling you
What the old Dutch clock declares is true.)

The Chinese plate looked very blue,
And wailed, "Oh dear! what shall we do?"
But the gingham dog and the calico cat
Wallowed this way and tumbled that,
And utilized every tooth and claw
In the awfulest way you ever saw—
And oh, how the gingham and calico flew.
(Don't think I exaggerate—
I got my news from the Chinese plate.)

Next morning when the two had sat,
They found no trace of dog or cat;
And some folks think unto this day
That burglars stole that pair away;

But the truth about that cat and pup
 Is that they ate each other up—
 Now what do you really think of that?
 (The old Dutch clock it told me so,
 And that is how I came to know.) —*Eugene Field.*

“SUPPLEMENTARY” SPELLING.—Just as pupils need supplementary reading to give them strength and readiness in grasping new thought and unfamiliar words, so they need supplementary lessons in spelling. Pupils may spell correctly a list of words dictated one by one, and miss half the same list if sentences are dictated containing the same words. For instance, the pupil may readily spell gingham, calico, side and table, yet fail when asked to write :

“The gingham dog and the calico cat
 Side by side on the table sat.”

Therefore it is well occasionally to supplement the regular spelling lessons in various ways.

I—DICTATING A POEM.

Suppose “The Duel” by Eugene Field be used as the text for a series of lessons. Awaken interest by telling the class that the lesson will be a stanza of poetry, and that to help them to spell creditably, the most difficult words will be placed on the blackboard. The list from the first stanza may be :

| | | | | |
|---------|---------|--------|-------|---------|
| gingham | Dutch | 'twas | duel | neither |
| calico | Chinese | wasn't | awful | simply |

Dictate slowly, a whole line at a time. Repeat the line two or three times if the pupils are not accustomed to such an exercise, and so can not hold the thought in mind from hearing it once. If possible give the whole of the first stanza for one lesson :

“The gingham dog and the calico cat
 Side by side on the table sat : ” etc.

Pupils are to write it as poetry, *i. e.*, to begin the proper words with capitals and arrange the lines as they should be. Correct each paper and have the pupils copy the stanza neatly, leaving space for the succeeding stanzas which may be given in subsequent lessons.

The stanza may be “correlated” with a language lesson and utilized as desk work, special stress being laid upon the spelling

in the exercise. For, sad to relate, a pupil may spell gingham correctly both when the single words and when the stanza are dictated and then in his desk work write *ging-um*! The purpose in view is to make gingham sink into his sub-consciousness so that he will spell it correctly *without thinking about it*.

DESK WORK.

a. Those sitting on the right hand side of their desks, each use the following questions as a guide in writing a letter telling about the spelling lesson :

1. What did you have for your spelling lesson?
2. What did the stanza tell about?
3. Who knew about the duel?
4. Did you miss any words?

b. Those sitting on the left hand side, answer the following questions in such a way as to make it the first chapter of a story called The Duel :

1. Who fought the duel?
2. What time was it and had either taken a nap?
3. Who else were there and what did they know?
4. Were you there? How did you know about it?

Here are two of the papers :

BLANKVILLE, IND., Dec. 6th, 1897.

DEAR EDITH :—

We had a stanza of poetry for our spelling lesson to-day. Miss A— wrote the hardest words on the board for us to study. The stanza told how the gingham dog and the calico cat were going to have a duel. When it was half past twelve they had not slept any. I think they *quareld* for the Dutch clock and Chinese plate knew there was going to be an awful spat. The Chinese plate told about it and he knew because he was there.

I thought I knew every word but I missed gingham and Chinese.

Your friend,

LEONA A—

The gingham dog and the calico cat fought a duel. Neither of them had slept a wink at half past twelve. The Chinese plate and the Dutch clock were in the room. They knew the dog and cat were going to have an awful spat.

I was n't there but the Chinese plate told me about it.

(TO BE CONTINUED.)

LESTER H—

II—WINTER WORDS.

"Let us make our own spelling lesson to-day," said Miss Stewart, "by writing words that this winter weather makes us think of. We will call them winter words." Snow, ice, skates, sleds were promptly suggested by the class.

At length the following list, the work of the pupils assisted by the teacher was written on the blackboard :

| | | |
|----------|------------|--------------|
| snow | snowstorm | snowbird |
| snows | snowflake | snow ball |
| snowed | snow drift | snow shoe |
| snowing | snow-white | snow shed |
| snowy | snow drop | snow plow |
| ice | skates | skating |
| icy | sleds | sliding |
| icicle | sleighs | coasting |
| freeze | frost | frost bitten |
| freezing | frosted | frost work |
| frozen | frosty | Jack Frost |

After a brief time for study, there was a brisk oral spelling lesson. Then came a short written exercise in which Miss Stewart adapted the flash method to the lesson. Instead of orally dictating the words which she selected from the list, she quickly wrote each upon the blackboard and immediately erased it, the pupils reproducing it in writing from the fleeting glimpse they caught of it. Instead of writing the whole of many of the "snow" words, she simply wrote a part, as drift, ball, the class writing snow drift, snow ball.

DESK WORK.

The next day there appeared upon the blackboard :

a. Write 16 winter words, 8 of them beginning with snow, 4 with frost and any other 4 you choose.

b. Write 4 sentences in which you weave as many of the winter words as you possibly can.

III—ONE OF THE SEVEN LITTLE SISTERS.

Miss Stewart felt that the cold, snowy midwinter days were just the time to re-read all that is told of Agoonack in "Seven Little Sisters" and "Each and All." Some one has said that a

book that is worth reading at all is worth reading more than once. Certainly Miss Andrews's charming little books are worth reading many times and to more than one grade.

To Miss Stewart's pupils, little Agoonack became a real person, a little friend whom, in years to come, they will recall distinctly when the faces of some of their present classmates shall have faded into a misty recollection.

Agoonack presided over pleasant oral lessons that were geography and language all in one. Various written exercises reinforced the oral work.

DESK WORK.

(a) Tell something about these words: Agoonack, Metek, Igloo, Iceberg.

COMPLETED WORK.

Agoonack.—Agoonack is a little Eskimo girl. She lives where there are ice and snow all the year.

Metek.—Metek is Agoonack's father. He is an Eskimo hunter.

Igloo.—Igloo is the name of an Eskimo house.

Iceberg.—An iceberg is like a mountain of ice floating in the sea.

- (b) 1. What kind of food does Agoonack live on?
2. Name some food that she does not have. •
3. What are her clothes made of?
4. Describe the house she lives in.
5. Tell what pleasures she has.

One day the desk work was delightful. Miss Stewart gave each one a card on which was a design representing the northern lights, icy peaks, an igloo, and Agoonack riding on her sled.

They had seen the picture in "Seven Little Sisters," now were to reproduce it, in colored zephyrs.

Miss Stewart had borrowed needles from the first primary room, and enjoyed the pupils' surprise and pleasure. Does some one exclaim, "Sewing cards in the third grade!" For a special occasion, certainly.

Make the class familiar with the story of Agoonack, and then let them with needle and colored thread illustrate the lights that

"flame into golden and rosy streamers," the snow white peaks, the gray stones of the igloo, and the brown dogs. It is quite as pretty as a drawing made with colored pencils. If unfortunately some one suggests that *boys* do not sew, ask coldly what *tailors* do. Besides this is really coloring a picture and is more like drawing than sewing. The finished card makes a pretty souvenir which may well be treasured among the mementoes of school days.



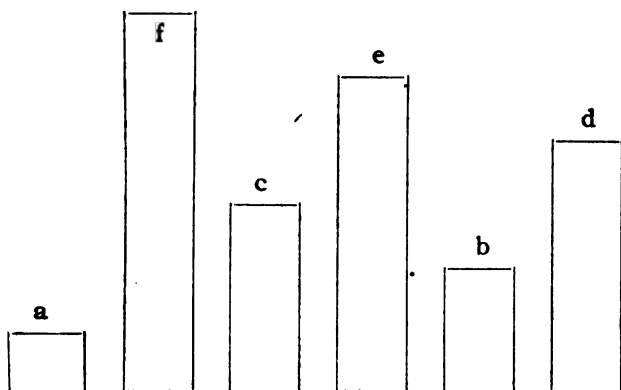
(One of the "Seven Little Sisters" sewing cards, by Miss Lucie Haring, Aurora, Ind.)

IV—PRACTICE WORK WITH THE MOVABLE UNIT.

The following seat work is for any class that has had the requisite previous training. An advanced first grade can do the work, while it is equally good for a second, third or fourth grade who are beginning work in the Speer Method. It is most satisfactory for each pupil to have at the desk a miniature set of Speer blocks, but a set of cardboard rectangles will serve. Let the pupil understand that he is to take each card in turn as a standard and compare each of the other cards with it.

A convenient size for the cards is from 1 to 6 inches in length.

The pupil should not arrange them in regular order like stair steps.



1. If *a* weighs 1 lb., what does each of the others weigh?
2. If *a* cost a dime, what does, etc.?

COMPLETED WORK.

(1)

a weighs 1 lb.
f " 6 lbs.
c " 3 lbs.
e " 5 lbs.
b " 2 lbs.
d " 4 lbs.

(2)

a costs a dime.
f " 60 cts.
c " 30 cts.
e " 50 cts.
b " 20 cts.
d " 40 cts.

3. If *f* weighs 1 lb., what does each of the others weigh?
4. If *f* costs 30 cts., what does, etc.?

COMPLETED WORK.

(3)

f weighs 1 lb.
c " $\frac{1}{2}$ lb.
e " $\frac{1}{3}$ lb.
b " $\frac{1}{4}$ lb.
d " $\frac{1}{5}$ lb.
a " $\frac{1}{6}$ lb.

(4)

f costs 30 cts.
c " 15 cts.
e " 25 cts.
b " 10 cts.
d " 20 cts.
a " 5 cts.

" Oh, I am the happy New Year, Ho! Ho!
 Here I come, tripping it over the snow,
 Shaking my bells with a merry din,
 So open your doors and let me in!"

EDITORIAL.

"AND now what greeting shall our New Year give?
Shall he be lavish of good promises
And spend his living all on them? Or shall
He quietly be redeeming some
The old year made?"

—*Selected.*

WE WISH our readers, one and all, a happy and successful New Year.

THE INDIAN SCHOOLS.

The annual report of Dr. W. N. Hailmann, superintendent of Indian schools, has recently been made public. Supt. Hailmann is still collecting data bearing on the problem of "returned students," going back to their tribes after school life has been taken up. The information already obtained would indicate that the criticisms of the Indians and the schools on this score are justifiable in very slight degree.

Dr. Hailmann says that few schools are doing creditable work in the line of manual training, the results being meager, even where special teachers are employed for this work. This is due partly to lack of facilities, and partly to lack of civil service eligibles for this branch of the Indian school work. The former obstacle is being gradually overcome; the other can be overcome only by making the positions more lucrative. For the study of agriculture an excessive acreage of land appears to be a hindrance, rather than a help, from an educational standpoint.

The discovery of children of very little Indian blood in the boarding schools leads to the recommendation that, as there seems to be no remedy under existing laws, Congress should indicate by statute what degree of blood shall constitute an Indian, and to what extent adopted Indians shall be entitled to governmental support in education.

The report is full of interest from beginning to end. It shows that the writer is thoroughly interested and that he fully comprehends the problems to be solved. He is the right man in the right place.

N. E. A. WILL MEET AT WASHINGTON, D. C.

The executive committee of the N. E. A., at its last meeting in Chicago, November 27, decided, by a unanimous vote, to select Washington as the place for the next meeting of the National Educational Association, and the time, July 7 to 13, inclusive. The choice was a matter of no little difficulty, owing to the very strong attractions offered by the competing cities, viz., Omaha, Salt Lake City, and Los Angeles. Already the railroad lines from Chicago to Washington have granted the usual one fare for the round trip, plus the membership fee. Formal action as to the ticket conditions and extension of tickets for return will be announced at an early date. It is

believed that these ticket conditions will be more liberal than have ever before been secured. The meetings will open on the evening of Thursday, July 7, and close on the evening of Tuesday, July 13. The advantages of this arrangement are, that Sunday travel going to or from the meeting will be unnecessary. There will be no session on the afternoon and evening of Saturday, the time being given to social and other recreations.

The churches of Washington will be invited to arrange for sermons and addresses bearing upon educational themes on Sunday, the 9th. It is believed that this relief of Saturday afternoon and Sunday, occurring in the midst of the session, will be welcome.

IRWIN SHEPARD, *Secretary N. E. A.*

THE CALL TO CHATTANOOGA.

The meetings of the Department of Superintendence of the National Educational Association will be held at Chattanooga, Tenn., Feb. 22-24, 1898. The morning and evening sessions will be devoted to regular discussions, and the afternoon sessions to conferences on important subjects. "The Mission of the Elementary School," "The Township High School," "Vacation Schools," and "Continuous Sessions at Normal Schools," are among the topics which will be discussed. "What can Child Study Contribute to the Science of Education?" is a question that will be treated with a view of ascertaining the limits of the services that may be rendered by investigations in this line.

The hotels have agreed to make the usual reduction in rates. The Southeastern Passenger Association has adopted a rate of one first-class fare for the round trip to Chattanooga, and favorable rates are expected from the other passenger associations. The views of scenery from Lookout Mountain are unsurpassed. N. C. Schaeffer, of Pennsylvania, is president.

THE WERNER SCHOOL BOOK COMPANY.

The Werner School Book Company finds more or less confusion arising from the similarity of the two names, Werner School Book Company and the Werner Company, and has issued the following notice:

"This is the Werner School Book Company, and not The Werner Company. The Werner School Book Company is a corporation entirely separate from and having no connection with The Werner Company. All communications intended for us must be addressed to the Werner School Book Company, and not to The Werner Company. The similarity in names of the two companies leads to errors which cause unpleasant and sometimes serious delays."

The School Book Company had a general moving day December 1, its headquarters in Chicago going from the Rand-McNally building, 160 Adams street, to the Studebaker building, 378 Wabash avenue; and the New York office from 5 and 7 east 16th street to 78 Fifth avenue.

SPECIAL NOTICE.

From November, 1897, to October, 1898, inclusive, the questions in the Science of Education and General Culture work will be based on Plato, the Teacher, and Teaching the Language Arts, respectively.

For the six months beginning with November, 1897, the question in the Science of Education will be based on Plato, the Teacher, covering one of the Township Institute Outlines (1897-98) at each examination, beginning with the first.

For the same examinations the questions in General Culture work will be based on Teaching the Language Arts, covering one of the Institute Outlines as above, beginning with the first.

The questions mentioned above will be used in the primary examinations, March, April and May, 1898, without change.

COMPLIMENTARY.

Supt. Geo. W. Twitmeyer, of Bethlehem, Penn., writes: "I regard THE INDIANA SCHOOL JOURNAL one of the very best, most helpful, most suggestive journals I know, and I subscribe for and read a dozen or more." *Thanks.*

THE compulsory law seems to be giving very general satisfaction. There has been a little friction in a few places, due to the indiscretion of officers.

THE TOWNSHIP OUTLINES refer to an article by Arnold Tompkins printed in the JOURNAL some time ago. Inasmuch as the article is a valuable one not within reach of many present readers of the JOURNAL it is reproduced on another page. Teachers will appreciate this.

STATE SUPERINTENDENT GEETING is making an effort to bring about the consolidation of school districts and thus reduce the number of schools. the same thing has been tried by other superintendents, but Mr. Geeting will try to have the law amended so as to make such efforts more effective. Such a thing is very desirable from several points of view.

ALL books are divisible into two classes, the books of the hour and the books of all time. Mark this distinction—it is not one of quality only. It is not merely the bad book that does not last, and the good one that does. It is a distinction of species. There are good books for the hour and good books for all time; bad books for the hour and bad books for all time.—*John Ruskin.*

LARGE space is given this month to the article by Supt. L. H. Jones. It was read to the City Superintendents at their last meeting, and was so highly appreciated that there was a general request that it be printed, in order that it might be studied. It is a profound study of the subject treated, and will be especially appreciated by all those who have to do with the making of a course of study.

BUFFALO, N. Y., is to have a truant school, which will be a temporary home for boys who persist in running away. Arrangements are being made to enforce the new truant law. Every patrolman will carry a book of blank reports, which will be filled out and returned each day to the superintendent of schools. These reports are worded as follows: "The following children, apparently between the ages of eight and sixteen years, have been found wandering about the streets and public places of the city during the school hours of the school day, having no lawful occupation or business and growing up in ignorance, and are reported as proper subjects for investigation by an attendance officer of the department of education."

THE article on "The Teaching of Number as Ratio" in current issue of the JOURNAL, will be read by the thoughtful teacher with much interest. Dr. White furnished the same thoughts for "Intelligence" and many of the educational papers are disposed to criticize his views. The *Speer* method, which is the ratio method, in arithmetic has made a great stir in the educational world. It is receiving attention at most of the educational meetings of the present year. While it is being very generally endorsed, there are many teachers like Dr. White, who do not recognize that number involves the idea of ratio or that each and every number is an implied ratio: Dr. White is the first educational authority to speak out in criticism of the ratio method, and his theory will surely provoke discussion. We will follow the discussion with interest.

THE Pedagogical Society of Indianapolis had a most interesting and profitable meeting on December 11. The subject for discussion was "The Relation of the Library to the Public Schools." Miss Etta Miller of the city schools and Mr. Faerste, of Dayton, Ohio, read papers. Miss Miller presented interesting statistics gathered from some twenty-three libraries of the United States. The most interesting point in these letters was concerning a Juvenile Reading Room. This luxury is now had in all the leading libraries. Some of the most telling arguments in favor of Juvenile Reading Rooms were: It saves confusion in the delivery room; enables the assistant to know the children, to know what they read and to control the books which get into their hands. Mr. Faerste presented the use of an evaluation card. This device for finding out what books are desirable for schools, could be carried on in any township. Cards are made by teachers and competent people on the following points. Is it suitable for a boy, or girl? For what age or grade? What is the subject of the book (not the title of course, if this is not descriptive)? In what locality do the chief events take place and within what period of history? Is it especially valuable as giving information on certain topics? What is the degree of excellence in the language employed? What is the general moral tendency of the story? What can you say of the abundance, artistic value and teaching qualities of the illustrations? The filling out of such cards is solicited both with references to books already in the library and to books not yet secured. These cards kept on file in some convenient place are guides to teaching and to the

purchase of books for the individual reader. If each teacher in city or county school would agree to examine in this way twelve books for two years, the value of this to the teaching profession could hardly be estimated. Teachers, try it.

CHARITY DYK.

QUESTIONS AND ANSWERS.

STATE BOARD QUESTIONS USED IN NOVEMBER.

THE LANGUAGE ARTS.

1. *"There can be no doubt that the average American student at the age of nineteen, brought up in the secondary schools, is as much behind the English or Continental student of the same age in ability to compose in his mother tongue as he is in ability to perform other scholastic work."*—Author's Preface. What explanations of the sentence set forth in the above sentence does the author give?

See pages XIV, XV, XVI, XVII, and XVIII. The best English and Continental systems of education are more rigid in their requirements than are ours. They are more strict in their examinations and they "make haste slowly" thereby outstripping us in the end.

2. *What are the aims and purposes that the author sets before him in this book,—Teaching the Language Arts?*

See pages 4 and 5.

3. *"Never, until the idea that composition is a 'study' to be learned from a book is banished from the school, will children be taught to write properly."* Is the above sentence pedagogically sound? Why?

It certainly is, for the books, as at present constituted, do not touch or teach the vital points necessary to the formation of good English. Nor can any book alone do that, for no author can foresee and caution against all the faulty variations that the crude student is apt to play upon his mother tongue. The very kind of help that is most needed, no book can give, and very few teachers, as yet, are able to impart just the kind of instruction and drill that give the student the power to express himself easily, clearly, and fluently.

4. *What is the comparative importance of the vernacular as an educational instrument?*

It is the foundation upon which all other subjects have to be built. (See pages 14, 15, 16, 17).

5. *What does the author say as to the origin of the child's knowledge, and what stock of ideas has the average child of six years?*

See chapter V.

UNITED STATES HISTORY.

1. *Write in about 200 words your estimate of Patrick Henry. What is the source of your information.*

Our estimate of Patrick Henry is derived chiefly from his instinctive

adherence to the "voice of the people," and his uniform success in his battling for the right. These two features are very prominent throughout his public life, and prompt us to hold him in high estimation as a patriot, orator, and statesman of high rank, and a man who wielded though his wonderful powers, such an unbounded influence, that we tremble to think what might have occurred had he not been on the stage of action in those critical times preceding the Revolution. (See any good biography of Patrick Henry.)

2. *What was the contention of John C. Calhoun as to the origin and nature of the Federal Government? Answer in about 200 words.*

The answer to this question is well set forth in "Calhoun's Resolutions on the Powers of the Government," which are as follows:—

Resolved, That the people of the several States composing these United States are united as parties to a constitutional compact, to which the people of each State acceded as a separate sovereign community, each binding itself by its own particular ratification; and that the Union, of which the said compact is the bond, is a union between the States ratifying the same.

Resolved, That the people of the several States, thus united by the constitutional compact, in forming that instrument, and in creating a general government to carry into effect the objects for which they were formed, delegated to that government, for that purpose, certain definite powers, to be exercised jointly, reserving at the same time, each State to itself, the residuary mass of powers, to be exercised by its own separate government; and that whenever the general government assumes the exercise of powers not delegated by the compact, its acts are unauthorized, and are of no effect; and that the same government is not made the final judge of the powers delegated to it, since that would make its discretion, and not the constitution, the measure of its powers; but that, as in all other cases of compact among sovereign parties without any common judge, each has an equal right to judge for itself, as well of the infraction as of the mode and measure of redress.

"Resolved, That the assertions that the people of these United States, taken collectively as individuals, are now, or ever have been, united on the principles of the social compact, and as such are now formed into one nation or people, or that they have ever been so united in any one stage of their political existence; that the people of the several States composing the Union have not, as members thereof, retained their sovereignty; that the allegiance of their citizens has been transferred to the general government; that they have parted with the right of punishing treason through their respective State governments; and that they have not the right of judging in the last resort as to the extent of the powers reserved, and, of consequence, of those delegated; are not only without foundation in truth, but are contrary to the most certain and plain historical facts, and the clearest deductions of reason; and that all exercise of power on the part of the general government, or any of its departments, claiming authority from so erroneous assumptions, must of necessity be unconstitutional, must tend directly and inevitably to subvert the sovereignty of the States, to destroy the federal character of the Union, and to rear on its ruins a consolidated gov-

ernment, without constitutional check or limitation, and which must necessarily terminate in the loss of liberty itself."

READING.

1. *How early in the grade work should children be directed to the study of the thought of the selection? Give reasons.*

To some extent, as early as the child can read a sentence. The thought must be, at this period, very simple, still it is thought, and of the grade that belongs to the child's own limited intellectual world; hence, he understands it, and, because he does, it is proper intellectual food for him.

2. *Make clear the value of "lesson planning" in teaching reading.*

Lesson planning is valuable and absolutely necessary to good teaching, in every subject of knowledge. Its value in teaching a reading lesson, or in hearing a recitation in reading consists of the following features: (a) The teacher has clearly set before her the line of action to pursue to accomplish the purpose of the lesson. (b) She has also in hand, the ideas of other knowledge subjects which she thinks will be fitting and profitable to correlate with the reading. (c) A wise lesson plan will prevent waste of time and energy, on the part of all concerned, and will prevent the inculcation of habits of listlessness and inattention, on the part of the pupils.

3. *What difference would you make in the formation of questions for children in the first and sixth years, if working on the thought in both classes? Why?*

The questions in each case should be limited by the boundaries of the intellectual world of each class. This limitation does not rule out certain questions reaching outside the pupils' knowledge, if based upon ideas within their knowledge. The nature of the questions should be determined by the pupils' powers of understanding and by the strength and activity of their different intellectual faculties at the respective periods mentioned.

4. *What value do you attach to "the learning of definitions?" When is such work valuable? When harmful?*

The learning of definitions is not valuable unless the pupil is far enough advanced to understand the development of them by the teacher. When they are "worked out" by teacher and pupils, clearly and judiciously, they are then valuable and are then remembered. The amount of good attained by simply committing them, without clearly understanding their nature and significance, is not at all commensurate with the time and energy expended.

5. *At what stage in the study of a selection should the children read orally?*

Certain parts of it should be read orally at all stages of its study. Complete paragraphs or divisions should be read only when the selection has been thoroughly studied.

6. *Give a brief outline of first-year reading work in the State Manual. (If you are teaching in a graded school, outline the year or years you teach.)*

7. *Read a selection to the County Superintendent.*

GRAMMAR.

1. *Name the great classes of words. On what basis is this division made? Show why we have these classes.*

The great classes of words are (in accordance with the proposer of the question) substantives, attributives and words denoting relation. This classification is said to be based on the nature of the ideas which they express. Interjections are not included in this classification.

2. *Write the following words in two columns. In one column write the masculine form, and in the other the feminine: Baron, duke, lad, bean, earl, king, niece and nun.*

3. *What is a relative pronoun? What kinds have we? Illustrate.*

A relative pronoun is a pronoun which relates to a preceding word called its antecedent, to which it joins a limiting clause.

The kinds are simple and compound. The simple relatives are those which consist of a single word; as *who, which, what, as, whose* and *whom*. The compound relatives are those which are made up of certain simple relatives and *ever* or *soever*; as *whoever, whatsoever, etc.*

4. *Write out just the steps you would take in teaching the definition of an adjective.*

(a) Place before the pupils sentences similar to the following: 1. John has a sharp knife. 2. Nine marbles are in the box. 3. The apples are large and sweet. 4. This pretty book belongs to that boy. 5. The teacher looks pleasant. 6. The building is safe. 7. He is sick, etc. (b) The nouns, or substantives, being already understood by the pupils, the teacher directs the children to find words that express something about the things represented by the nouns,—that express kind, quality, appearance, condition, or number. (c) By proper questioning the pupils are led to see that most of these words modify or restrict the meaning of nouns; and that some are merely used to point out objects, in a certain way. (d) They may next give other examples than those found in the illustrative sentences. (e) An informal definition may now be constructed such as—An adjective is a word used to describe or define an object by denoting kind, appearance, condition, or number, or by pointing it out in a certain way.

5. *Compare and contrast the relative pronoun and the conjunctive adverb as to their nature, classes, and uses.*

The relative pronoun has a double use—that of a connective and that of a substantive. The conjunctive adverb has a double use—that of a connective and that of an adverb. In the connective use of each the clauses joined are of equal rank. The classes of the relative pronoun are simple and compound. (See answer to 3.) The classes of the conjunctive adverb are simple and compound. The relative pronoun always joins its clause to a substantive. A conjunctive adverb may join its clause to a verb, an adverb, or a substantive. [When it joins its clause to a substantive, it is sometimes called a *relative adverb*.]

6. *State three rules for the agreement of a verb with its subject.*

A verb having as a subject a collective noun in the singular, must be

singular or plural, according as the subject conveys the idea of unity or plurality. A verb having two or more subjects in the singular, modified by *each*, *every*, or *no*, must be singular. A verb having two or more subjects in the singular joined by *or* or *nor* must be singular.

7. *Men's evil manners live in brass; their virtue we write in water.* Classify the sentence on two bases and give reasons. Give the principal elements of the thought and the principal parts of the sentence.

This is a compound sentence because it consists of two co-ordinate clauses; it is declarative because its purpose is to express a fact. [This sentence presents no difficulty.]

GEOGRAPHY.

1. (a) *State whether the greater portion of Africa is north or south of the Equator. Of South America.* (b) *State approximately the meridian in which will be found the middle point in extent, from east to west of the United States, exclusive of Alaska. Inclusive of Alaska. Name some large city near the meridian in each case, and state whether the city is east or west of the meridian.*

(a) Of Africa the greater portion is north of the equator. (b) 97th meridian. 117th meridian. St. Louis, east of 97th. San Francisco, west of the 117th meridian.

2. *What determines the position of the arctic circle? The antarctic circle? Tropic of cancer? Tropic of capricorn?*

All are determined by the inclination of the earth's axis to the plane of its orbit and the revolution around the sun. This inclination causes the sun's rays, on the 21st of June, to reach $23\frac{1}{2}$ degrees beyond the north pole and to lack $23\frac{1}{2}$ degrees of reaching the south pole. On the 21st of December these conditions are reversed. These limits determine the arctic and the antarctic circle. The extreme limit of the sun's vertical rays north of the equator determines the position of the tropic of cancer. The extreme limit of the sun's vertical rays south of the equator determines the position of the tropic of capricorn.

3. (a) *Locate the coal region of Indiana and state its approximate extent.* (b) *Locate the natural gas and oil region and state its approximate extent.*

(a) The coal beds in Indiana are "a part of the great coal field of Illinois, Indiana and Kentucky. They cover 7,000 square miles in the western part of Indiana, extending from Warren County to the Ohio River, or about 150 miles."—*Harpers' School Geography*.

(b) The gas field "extends north and south for 165 miles through the eastern and central parts of the State."

(c) Petroleum has been found in paying quantity in the counties of Adams, Blackford, Grant, Huntington, Jay and White. (See document—Mineral Resources of United States.)

4. *State position, relief and size of Greece. What geographical conditions tended to make the Hellenes or Greeks the earliest civilized people of*

Europe? What conditions to the establishment in ancient times of numerous independent States?

Continental Greece includes the mainland and the peninsula of the Morea, or Peloponnesus. Insular Greece includes the Ionian islands and those of the Grecian archipelago. The mainland is chiefly mountainous. It has an extensive coast line formed by numerous gulfs which penetrate it in all directions. Numerous independent states were established through the lack of political unity and the love of democracy.

The geographical conditions that made the Greeks the earliest civilized people of Europe were (*a*) their proximity to Egypt, and to the highlands of Phrygia in northwestern Asia Minor; (*b*) their nearness to the sea, and the numerous indentations in their coast line; (*c*) their pleasant climate and valuable forest timber.

5. Name the four great commercial cities of our Atlantic coast and give geographical reasons for their being great centers of population at these points.

New York City, Boston, Baltimore and Philadelphia. Rivers or fine harbors, or both, thereby facilitating commerce by water; pleasant climate; the surrounding country rich in natural resources; these are the chief geographical features contributing to the wealth and growth of these cities.

6. The Mediterranean Sea is more salty than the ocean. Why?

Because the evaporation is greater than it is on the ocean surface. The amount of fresh water that is removed from the surface of the Mediterranean sea being greater than that removed on the ocean surface, both the density and the salinity of the water of this sea is thereby made greater than we find these same features to be in the ocean.

PHYSIOLOGY.

1. In the familiar comparison of the cells of the human body to individuals of a community, with what may the white blood corpuscles be compared?

They may be compared to the scavengers of a community, whose duty is to remove anything that is injurious to health; they may be compared to army reserves ready to do battle whenever needed; and they may be compared to all those people of a community who are constantly on guard, and frequently in active effort, to prevent the rise and growth of any evil seeking to establish itself among them.

2. If in the above comparison, the circulatory system represents the transportation systems of a nation, what may represent the retail storekeeper? Carry your discussion out to the limit of the comparison. In what products does it deal?

Such comparisons can not be closely made. The liver could be called a store-house of sugar products; the digestive tract, the depot for all the supplies—proteids, sugars and fats; and this tract together with the kidney apparatus constitutes the sewer system for the removal of refuse products, and so on.

3. *Is experimental work in physiology feasible in advanced grades of the common school? Give full reason for your answer.*

It certainly is, for the apparatus needed is simple and inexpensive. (See Blaisdell's Physiology, published by Ginn & Co.)

4. *Can mechanical devices and charts be depended upon for giving correct conceptions of anatomy?*

They answer very well, when accompanied by good text-book descriptions; of course, it is well understood that the real tissue or organ itself is better than any representation or description.

5. *What is the nature of the nervous impulse governing a sustained muscular contraction, as in holding out a weight?*

A sustained muscular contraction is kept up under successive stimuli sent out from the nerve centers and repeated at proper intervals (a certain number per second); each stimulus acts upon the muscle before the effect of the preceding one has begun to pass off, and thus the muscle is kept in a state of permanent or "tetanic" contraction.

6. *What are some of the unsettled questions for which physiologists are seeking answers?*

The true functions of the white corpuscle; the spleen, the pituitary body, the tonsils, etc.; the effect of exertion, loss of sleep, etc., on the cell; the phenomena of reproduction, etc.; indeed, more light is needed in all of the departments of the study of the human body, even where our knowledge seems to be the most thorough and satisfactory.

7. *How would you illustrate by experiment stomach digestion? How salivary digestion?*

(a) By subjecting certain foods to artificial gastric juice; (b) by subjecting a small bit of starch paste to some saliva.

8. *By what means does the science of physiology advance?*

By the inferences drawn from observation and experiment.

SCIENTIFIC TEMPERANCE.

1. *The external application of alcohol to the skin has what effect upon its temperature? If taken internally what effect has it upon the temperature of the body?*

(a) It lowers the temperature when allowed to evaporate. When evaporation is prevented by covering with flannel, or by rubbing it into the skin, it produces heat, redness, and superficial inflammation.

(b) When taken internally it lowers the temperature, although the sensation is one that indicates warmth.

2. *Which of the evil effects of the use of alcohol—the physical, mental, or moral—are, in your judgment, to be most deplored?*

In the light of a future state, the moral effects are most to be deplored.

3. *What advice would you give a mother relative to the administering of soothing syrups and cordials to young children?*

That she should by all means entirely abstain from the use of all such "syrups" and "cordials."

4. Which do you regard as the least injurious, the smoking of cigars, cigarettes, or pipes? Why?

The smoking of cigars is the least injurious, for cigarettes are dangerously adulterated, and the pipe stores away in its stem and bowl the poisonous nicotine, ready to produce serious effects at the first opportunity.

5. Discuss briefly the effects of alcohol upon the heart's action.

The heart's action is increased in frequency. The forced action causes serious heart exhaustion, and in time involves grave changes of the structure of the heart. In time it becomes affected with fatty degeneration, which may at any time produce organic disease of the valves.

6. Compare coffee and cocoa as beverages.

Coffee stimulates the nervous system, and quickens the heart's action and the respiration. If taken in excess it often disturbs the rhythm of the heart and causes palpitation. Its effect in sustaining the body under fatigue and privation is very remarkable. Taken in excess, especially at night, it causes wakefulness. Cocoa is not so stimulating as coffee, but is better as a food, on account of containing much fatty matter, and some albuminous and starchy materials.

7. Does the brain experience any of the deleterious effects of the use of intoxicating drinks?

The brain suffers more quickly than any other portion. Intoxicants bring to it blood surcharged with a poisonous liquid, and bearing only a limited supply of oxygen. Alcohol reaches the brain unchanged, and has a great affinity for its tissue, which soon becomes hardened, and its cells shriveled.

SCIENCE OF EDUCATION.

1. What is the object or aim of all philosophical investigation?

To get at the truth, through reasoning, and the investigation of causes.

2. How does the method of philosophical investigation differ from the scientific method of investigation?

In philosophical investigation the material used, or sought for, consists of causes and reasons that explain the knowledge of the subject under investigation. In scientific investigation, the material used consists of things concrete.

3. What was the condition of philosophical studies in Greece before Plato?

There was no systematic pursuit or definite plan; nor was there any progress made.

4. Give the time and place of Plato's birth, with any additional facts concerning his early life and education that you know.

See page xxii of "Plato."

5. Describe the condition of Athens at the time of Plato's birth?

See page xiii, of Plato, see also SCHOOL JOURNAL for September.

6. The Apology: (a) Under what circumstances composed? (b) What was its main object? (c) State the general structure or plan.

(a) It was composed under the inspiration of the moment, in presence of the court. (b) To show the falsity and the insincerity of his accusers; to show what is of value and what is worthless. (c) The general structure or plan is systematic and logical.

ARITHMETIC.

1. State how you would give to a class a clear conception of the units "rod," "bushel" and "acre."

By actual measurements.

2. Have you studied algebra? Have you studied geometry? Do you consider a knowledge of either of them necessary to one teaching arithmetic? Do you consider it desirable to commence the study of algebra or geometry before that of arithmetic is finished? Give reasons in support of your opinion.

A knowledge of both algebra and geometry is not absolutely necessary to one teaching arithmetic; but a good knowledge of these branches is exceedingly helpful, and the teacher who has a fair knowledge of them has a decided advantage over one who does not. One never completes the study of arithmetic. Algebra is universal arithmetic, and geometry is one of its divisions; hence, let both algebra and geometry be taught in arithmetic wherever their ideas, processes, and symbols will aid the understanding or broaden the conception.

3. Express $\frac{6\frac{1}{2} + 5\frac{1}{2} + 3\frac{1}{2} - 7\frac{1}{2}}{3\frac{1}{2} + 2\frac{1}{2} - 4\frac{1}{2}}$. Answer, $5\frac{5}{8}$.

4. Find the greatest common divisor of 611, 893, 1363 in its simplest form. Answer, 47.

5. What will 432 copies of a book cost at \$1.30, less 25 and $2\frac{1}{2}$ per cent.?
 $\$1.30 \times .75 \times .975 = \$.95\frac{1}{8}$;
 432 books @ $\$.95\frac{1}{8}$ = \$410.67.

6. What is the diameter of a wheel which rotates 1,125 times in rolling a mile?

There are 63,360 inches in a mile; $63360 \div 1125 = 56.06\frac{2}{3}$, the number of inches in the circumference of the wheel; $56.06\frac{2}{3} \div 3.1416 = 17.84+$, the number of inches in the diameter; this gives 1.49+ ft.

7. What is the duty on 2754 pounds of goods worth \$1.34 per pound when the tariff prescribes $3\frac{1}{2}$ cents per pound and 8 per cent. ad valorem.

2754 pounds @ \$1.34 = \$3690.36;

8% of \$3690.36 = \$295.2288, the ad valorem duty.

2754 pounds @ $3\frac{1}{2}$ cts. = \$89.505, the tariff;

\$295.2288 + \$89.505 = \$384.7338, the whole duty.

8. How many days 8 hours long will 35 men take to finish some work which 24 men can do in 21 days, working 10 hours per day.

24 men in 21 days of 10 hours each, will amount to 4050 hours for one man. 35 men in 8 hours will do 280 hours work for one man.

It will take as many days, for 35 men working 8 hours a day, to do 4050 hours work, as the number of times 280 is contained in 4050, which is 18 times; therefore 18 days.

9. Find the principal that will produce \$1,604.35 in two years, three months, and five days at simple interest at 5 per cent.

$$P \times 1\frac{5}{100} \times \frac{25}{12} = 1604.35$$

$$1604.35 + (1\frac{5}{100} \times \frac{25}{12}) = 14173.398+;$$

$$\text{Hence, the principal} = \$14173.398+.$$

10. Discuss the arithmetic work of the first four years as outlined in the State course of study. (If you are teaching in a graded school discuss the work outlined for your grade.)

SOLUTION REQUESTED.

[Problem 5, page 327, *Indiana Complete Arithmetic*.]

5 cubic feet of gold weigh 98.2 times as much as a cubic foot of water, and 2 cubic feet of copper weigh 18 times as much as a cubic foot of water; how many cubic inches of copper will weigh as much as $\frac{1}{8}$ of a cubic inch of gold?—(A READER.)

1 cu. ft. of water weighs 1000 ounces;

98.2 times 1000 = 98200 ounces;

5 cu. ft. of gold weighs 98200 ounces;

1 cu. ft. of gold weighs 19640 ounces;

1 cu. in. of gold weighs $\frac{19640}{1728}$ oz. = $2\frac{11}{18}$ oz.;

$\frac{1}{8}$ cu. in. of gold weighs $\frac{1}{8} \times 2\frac{11}{18}$ oz. = $\frac{11}{72}$ oz.

18 times 1000 ounces = 18000 ounces;

2 cu. ft. of copper weigh 18000 ounces;

1 cu. ft. of copper weighs 9000 ounces;

1 cu. in. of copper weighs $\frac{9000}{1728}$ oz. = $5\frac{1}{4}$ oz.

$\frac{11}{72} \div 5\frac{1}{4} = 1.6792+$, the number of cubic inches of copper that will weigh as much as $\frac{1}{8}$ of a cubic inch of gold.

QUERY 61. By whom and on what occasion was the following statement made? "Truths, thrown into the caldrons of hell, would hiss like that."—N. J. GROVES, Milford.

JASPER COUNTY.—The Eighth Annual Session of the County Teachers' Association was held November 26. Nearly every teacher of the county was present, and each session was attended by quite a number of the citizens of Rensselaer and vicinity. The talks of Mrs. Sarah Tarney-Campbell, on Speer Number Work and on Language, were excellent and every teacher present received instruction and inspiration. The two papers, by Miss Emma Mannon and Mrs. Ella Hanley-Sayers on "Nature Work" were very interesting and instructive. The general discussion on this subject showed that many of the teachers of the county are interested in this work. President Burroughs's lecture Friday evening on the subject "Making Most of One's Self" was one of great merit, as was also his talk to the association Saturday on the subject "Present Practical Bearing of Child Study." The officers elected for next year are: President, Prof. I. N. Warren; Secretary, Miss Hattie Yeoman.

TOWNSHIP INSTITUTE OUTLINES.

PLATO, THE TEACHER.

In studying Plato, we are repeatedly reminded of Christ's method of teaching by parables. As He was accustomed to explain to His disciples the inner meaning of the parables, so does Plato seek to give his followers an understanding of the real thought in his dark sayings.

The allegory with which the seventh book of the *Republic* opens is, perhaps, one of the most difficult. Under the figure of a den, or cave, in which are confined human beings who are forced to gaze upon shadows cast by puppet-players, as it were, and to hear nothing but echoes of voices which seem to proceed from the shadows, Plato images a common experience.

"So may the outward shows seem least themselves," says Shakespeare; it is these outward shows, or the sensible appearances, that Plato calls shadows of reality. The eye that has never been trained to see anything but the outside is like that of the prisoner in the den; the eye that has been enabled to look upon the pure light of the sun is one that has learned to understand the relation of the shadow to the substance, *i. e.*, one that has attained to knowledge of the real nature of good, and that possesses, therefore, a just measure by which to estimate the real value of everything.

The effect of such clearing of the vision is to create aspiration—a continual effort to see more, and more truly; and this will be attended by a corresponding effort to bring life into harmony with the higher insight.

Plato shows that there are two kinds of blindness: the one is caused by passing out of darkness into light; the other is due to turning from light to darkness again. It should be the purpose of education to give sight to the blind, whatever the cause.

The faculty of sight is always present in human beings; education must lead the soul into light. In the first case, *i. e.* before truth is understood, it must teach the difference between being and seeming; in the second case, where the cause of blindness is due to looking solely at the abstract, or theoretical good, education must teach how to adapt this higher knowledge to men as they are; to overcome the contradictions between life as it is, and life as it should be. For great as is Plato's love of speculation, he plainly shows in this parable that the cultured mind has no right selfishly to withdraw from the world of men, either to live the life of an ascetic, or of a hermit scholar. He who has attained to knowledge of the good can not be permitted to remain absorbed in contemplation of the sun of truth, for thus he will become dazzled by excess of light; he must use his knowledge for the benefit of other men. Self-culture can never reach and hold the highest good, except by using his attainments in the service of the world.

In this book, Plato gives his idea of what may be called "higher education." We have already been made acquainted with the usual Greek education, that in music and gymnastics. The pure sciences and philosophy, according to Plato, are to be pursued only by the brighter minds—those that are fitted to become rulers. He realizes that "there is a difficulty in proving to mankind that education is not only useful information but an illumina-

tion and purification of the soul." He advocates the study of arithmetic, astronomy, etc., not for their practical application in the business of everyday life, but chiefly because they lead the soul to an understanding of abstract truth and the highest good.

Plato's view of the progressive steps in mind-training are interesting and important in suggestion to those who have any share in the education of youth to day. The new psychology is demonstrating that there is a right time for presenting every subject of thought and study to the child. To find this right time and to apply that discovery in the case of each individual child is one of the vital problems for teachers and parents. Again, we have occasion to note that Plato's opinion as to the necessity of arousing an interest in the subject of study is in harmony with that of Herbart.

Perhaps the American haste would not permit so long a term of years to be spent in preparation; and perhaps mind development really proceeds at a more rapid pace among nations to-day; but, on the whole, I am inclined to think that all experience proves the substantial correctness of Plato's ideas concerning the effect of introducing the youth to the study of dialectics and the abstract sciences too early. This book contains a valuable contribution to an understanding of children who are in the period of adolescence. Teachers of secondary schools must take account of this age of contradiction and of contradictions, so as to aid the questioning minds to a sane solution of life-problems.

The plan proposed by which good government and good citizenship are to be maintained has a rational basis, and implies a fundamental principle in education, viz. to remove the children from the influence of elders whose ideas and practices are in contradiction to sound wisdom and virtue. Since the example of daily association is more potent than any precept, the character of those with whom children are thrown is the most powerful educational influence.

Book Eighth, though ostensibly a review of forms of government and the manner of their inception, is really a further elucidation of the principle with which Book Seventh concluded. Man himself is a state in miniature, and in the life of individuals—but especially in that of successive generations—are exemplified all the conditions that mark the various forms of government in states.

In this fact, we find the special educational value of the discussion. As the best government will be administered by those who are lovers of good, so the noblest characters will be developed by fostering the love of truth and beauty in youth. Thus the individual will fulfil in himself the true, original meaning of aristocracy—the rule of the best.

When desire for personal honor supplants love of good as a motive principle, the soul becomes a timocracy; competition impels one to strive for the highest honor for himself, instead of desiring to aid others to advance. This breeds contention and strife among men. "Charity, or love, seeketh not her own."

The next lower step is reached when the possession of money is made the passport to power and respect, thus cultivating avarice as the controlling principle. The worship of money begets fawning servility toward the rich;

and as only a few can acquire great wealth, respect for the rich few means oligarchy in the soul and in the state.

The principle of democracy in government means to us something quite different from what it meant to Plato. In his view it represents a war of classes, and is a logical sequence of the oligarchical principle wherein wealth oppresses poverty—a system which eventually leads to revolt on the part of the poor. We can easily see that such a state of feeling is likely to arise in the heart of the individual whose education has been conducted on the oligarchical principle. For the great lack in such a mind is the total want of true reverence, without which no nobility of character is possible. Servility is at the opposite pole from reverence.

Irreverence breeds a spirit of lawlessness, and then the reign of license begins in the soul. This means a tyranny of passions—the worst state of man.

In Plato's graphic portrayal of the steps by which the soul declines from an aristocracy of virtue to a tyranny of passion, two vital educational principles are prominent: *First*, that we can not depend upon a presumed inheritance of good, but that the child must be continually in the enviroing atmosphere of noble sentiments; and that a love of good must be awakened in him through the cultivation of his esthetic faculties.

Second, that excess in everything should be avoided; the child must be taught by precept and example to restrain in himself any tendency to excess; for there is nothing so good but it may become an evil, if carried to extremes.

LOIS G. HUFFORD.

LANGUAGE ARTS.

Since it is altogether possible to waste much time in attempting to teach grammar and since it is possible also to make the time very valuable to the pupil, it is important that the teacher in the first place have a very definite notion as to what a study of grammar may do in the way of language equipment, and it is important also that the teacher know just to what extent his pupils are realizing this possible equipment. It is readily conceded that an accurate use of language is not acquired by the study of technical grammar alone; but after due consideration has been given to the fact, that habit fixed by fortunate environment is the potent factor in enabling one to use good, even elegant, English, it still remains true that much is left to be done by a thorough study of the principles of grammar. If a child has heard correct language all his life, he will be very likely to make the nouns and verbs agree, the participles and auxiliaries come together properly, the pronouns change their forms, and the prepositions observe proper decorum; but it will likely be necessary for this child with his good habits of speech to study with care the underlying principles of scientific grammar before there can be a thorough mastery of logical expression. The easy, correct use of language from habit, is sufficiently rare to awaken admiration, but still more rare is the language of ease and strength—the language requisite for the clear, accurate statement of connected thought.

From the extreme of employing useless verbiage called parsing and analysis, teachers have often gone to the other extreme of ignoring alto-

gether these exercises, which are exceedingly valuable when used within reasonable limits. Too much emphasis cannot be placed upon the study of the sentence both from the synthetic and from the analytic side. There is little difficulty in learning to say what a sentence is, but there is much difficulty in making one or in recognizing it when made. A boy usually knows if he has studied language at all, that at the end of a declarative sentence he should place a period, but he does not know when he reaches the end. Why? Because he has not a clear notion of sentence structure. If one is ever to acquire an available knowledge of language, he must think subject, predicate as real elements of a sentence; he must see that the essential nature of these elements remains unchanged by the taking on of all sorts of modifiers. The subject must be thought in its entirety, the whole predicate must be recognized.

Some of the most common errors, requiring the most thoughtful attention, are those growing out of a lack of fine discrimination in thinking. The time thought is not so clearly seen when there is a failure to make tenses correspond. When "can" is made to do service for "may," there is careless thinking. When "but" and "and" are used interchangeably, there is a fault in the logic and hence in the grammar. When "not only" and "but also," in their placing suggest an entirely incongruous thought, there is a "kink" in the mind as well as in the grammar. However, it is possible to think accurately and still to find it extremely difficult to put into either oral or written words the thought as it exists in the mind. The old and revered saying, "If you know a thing you can tell it," has rightly come to be regarded as rubbish. The power of expression does not come at the bidding. As a rule, it is a long road to travel.

Drill in correct form making the positive, that is, correct usage, the basis of the exercise is of great value throughout the different stages of the language work; but drill, however valuable, must be supplemented by a thorough training in logical thinking to the end of grammatical expression. What do I think? must constantly be asked. What do I mean? What I mean must determine what I say. Words put together in just any fashion will not make me say what I mean and so I must see to it that my sentences are constructed so as properly to represent my thought.

Synthetic exercises are necessary and valuable, but the study of models does much in the formation of a discriminating taste. A study of a piece of good prose first, poetry later, from the standpoint of sentence and paragraph structure will bring the very best of results. After a pupil has carefully studied the structure of a piece of composition, to discover the subject and predicate of every sentence and of every clause, the topic of every paragraph, he will have been compelled to do some logical thinking. This means that he will, in his own composition, be approaching grammatical expression.

EMMA MONT MCRAE.

THE SCIENCE OF SCHOOL-MANAGEMENT.

School-management is the process by which all the acts of the individuals constituting the school are brought into the unity of the teacher's mind and pupil's mind in the process of teaching. The fundamental law of

school-management is derived from the nature of the teaching act—an act in which the mind of the teacher and that of the learner become one. School-management is to secure this oneness. We are now to see the potency of this principle in ordering all the details of school work.

The basis of unity is in the will; the teacher and pupil agree to co-operate in a mental process; and all other agents in the school organism purpose to strengthen that co-operation. This is the fundamental condition of the organization of the school; and the normal condition is that all are perpetually choosing the unity described. But some do choose, ignorantly or otherwise, to break the unity. This broken unity school-management must restore. Even when all desire to co-operate, unity must be brought about by means. Thus we arrive at, on the basis of the attitude of the mind towards the school organization, two distinct phases of management: One, how to secure unity under the assumption that all the minds have proper attitude toward the end sought; the other, how to restore unity when ignorantly or willfully broken. The teacher's problem is ever with the will: in the one case, how to favor it and direct it into the unity to which it is already disposed; in the other, how to reverse its tendency and secure its co-operation.

UNITY UNDER THE FIRST CONDITION.

Whether the mind properly disposed does join in the teaching act depends, (1) on certain general conditions; and (2) on the process of teaching itself; *i. e.*, the teacher must, before entering into unity with the mind of the pupil, supply the external conditions on which the unity to be produced depends; and then, while the process of teaching moves forward, must hold the pupil's mind in unity with his own. Thus the first phase of management—that of securing unity when the mind is favorably disposed—has two subdivisions: first, that of securing the necessary conditions; and second, the process of bringing the minds together into the same act after the conditions have been secured.

CONDITIONS OF UNITY.

1. The primary and intermediate condition of unity is that of communication between teacher and pupil—by speech, look, gesture. Without this means the two minds could not be brought into the same act. Hence the first thing to do in management is to bring teacher and pupils into communicable relation; which means that all must be present at a given time and place. The law of obedience to the requirement of time and place derives its authority from the fact that without this particular form of obedience the co-operation of teacher and pupil is impossible. The law against absence and tardiness does not derive its validity from the school board or the legislature; but from the nature of teaching. Truancy is wrong because it renders impossible the oneness of mind between teacher and pupil, necessary to instruction. The pupil or teacher who is willfully absent or tardy does that which, if done by all who have the same right, and to whom the same right is extended by the law breakers from the fact that *they* have assumed such privilege, would completely destroy the school organization,

so far as teacher and pupil are concerned. This requirement of time and place is sacred, and the teacher and pupils should feel under strict obligations to keep it inviolate. There should be the most rigid adherence to exact time in opening and closing the day and its sessions. The ethical value of such obedience is to be discussed under the general heading of Ethical Value of School-management. I speak here only of such obedience in relation to the organic unity of teacher and pupils in the act of instruction.

Securing communicable relation between teacher and pupils requires more than their presence in the school house at the given time. It requires the pupils to be seated in a compact form, so that all can easily face the teacher and so that the teacher can easily seize the entire group in one view. The seated portion of the room should not be so wide from right to left, or so long from front to back, that all pupils can not be equally distinctly addressed, by voice or eye. If classes are to be heard in their seats, say in the left, middle, or right of the room, the width of the room from right to left would be increased above what it should be for convenience in grasping the school as a whole. In such a case there should be a compromise between the two requirements. If the school is to be addressed always as a whole, as is often the case in a high-school, the seated portion should be about square; if two grades are to be in the room, the seated portion should be about one third wider from right to left than from front to back.

It is not well to have the body of the school separated by stove or wide aisles. The external form of unity should be maintained. The rows of desks should be straight each way and of even length. The whole should look well as a body. When there are only a few pupils for the number of desks these pupils should not be scattered so as to give the whole a ragged appearance. Compactness and external form of unity furthers the mental unity sought.

It is wise foresight to visit the school room, before opening school, and make sure that the seating is in proper form.

This law of seating so as to secure easy communicable relations requires the teacher to keep the proper place before the school. He should not, for instance, go to the back part of the room to aid a pupil. He should be where he can see and be seen; hear and be heard.

But I do not desire to be exhaustive in enumerating cases under this requirement, but only to illustrate the principle of securing communicable relations between teacher and pupils in order to unity in the act of teaching.

2. The law of unity requires all the mental energy of the pupil on the subject under consideration. Therefore, the conditions must be such as not to divert a portion of his energy to something aside from the line of discussion. One cause diverting the energy from the thought in the lesson is the pupil's uncomfortable bodily condition. The pupil's physical condition must be such that he does not think of self; or, better, such that his mental energy will be intensified by physical vigor. The teacher can not supply red blood nor prompt the rhythmic pulse; but he can do much by way of securing comfort to the body while in the school-room.

a. The seats should be so comfortable that the body is kept rested—should be the shape of the body, and neither too high nor too low. Much

is properly said on hygienic grounds against the high desk for small pupils ; but I wish here to emphasize the fact that such is also detrimental to the act of instruction. The old split puncheon seat without back was very uncomfortable and thus very much opposed to mental unity of teacher and pupil.

We find here the ground for intermissions and for frequent physical exercises. This is not now a question of preserving health, but of securing undivided attention.

b. The air should be kept at the proper temperature. If a pupil is chilled his attention is directed to himself ; and in a school of forty chilled pupils there are forty unities instead of one. It would be difficult to over-estimate the waste from inefficient heating apparatus. With a small stove in one corner of a large room on a cold day, unity is impossible and the day wasted. The air must be kept at a uniform and proper temperature all over the room, or the efficiency of the teaching act is impaired—impaired just in that proportion in which the attention is directed to the self.

c. The effect of bad ventilation on the desired mental unity is obvious. Drowsiness and depression weaken and divert mental energy, and prevent the fullest co-operation of thought in the line of discussion.

d. The light may so fall on the pupil's work as to divert his attention from the thought in the lesson.

Thus all these points—seating, heating, ventilating, and lighting—so properly urged as matters of health, are the conditions to receive attention in securing unity in the act of instruction ; for bad seating, heating, ventilation, and lighting, make the body so uncomfortable that the pupil necessarily thinks of himself instead of the object to be considered.

ARNOLD TOMPKINS.

MISCELLANY.

OUT AND IN.

Outside 'twas cold,
As could be told,
By the blowing of the wind ;
It howled around,
With a doleful sound
Trying to get in.

Inside 'twas warm
No sign of storm
By the pleasant fire ;
Bright was the light,
'Twas a happy sight
Of which we do not tire;
What need we mind,
The blowing of the wind,

The cold and gloom without ;
 If within 'tis warm,
 And free from storm
 Of conscience lashed about ?

West Lebanon.

SADIE E. WELCH.

I FORGOT.

On or before January 1, 1898, I promise to pay W. A. Bell,
 one dollar, (\$1.00) for the INDIANA SCHOOL JOURNAL.

I declare, I forgot that. I do not know that I signed just such a note as the above, but I subscribed for the JOURNAL with the understanding that I would pay for it by Jan. 1, and I am morally under as much obligation to do it as if I had signed a note. I will attend to the matter at once.

WESTCHESTER TOWNSHIP LIBRARY.

Westchester township, Porter county, has made a good move. A plan for the establishment of a township library was submitted by E. S. Miller and adopted by the unanimous vote of the teachers. Each member is to pay a membership fee of one dollar, and the books are selected by a committee elected annually for that purpose. The library is for the exclusive use of members and each one is held responsible for the book in his care. Anyone may become a member upon payment of the membership fee. The librarian is required to keep a record of all books taken from the library and of the receipts and expenditure of all money belonging to the Association. At present, there are seventeen members and about thirty volumes. These books pertain not alone to pedagogy, but are the best that can be obtained in science, history and literature. The books are not only in the library, but they are being read. For further particulars address Mr. Miller at Chesterton.

THE PRONUNCIATION OF HIAWATHA.

The following note recently received by Houghton, Mifflin & Co., the authorized publishers of Longfellow's works, from a daughter of the poet, will be of especial interest to the public at this time on account of the increasing popularity of Hiawatha for school use.

CRAIGIE HOUSE, CAMBRIDGE, November 12, 1897.

MESSRS. HOUGHTON, MIFFLIN & Co. :

Dear Sirs :—The pronunciation used by my father was "He-awa'tha," the accent on the first syllable being slighter than on the "wa," the "a" sounded like "a" in "mar" not "war," as sometimes used.

I should be glad to have this impressed on the public.

Yours sincerely,

(Signed) ALICE M. LONGFELLOW.

The poem is published in the Riverside Literature Series in two parts, paper covers, at 15 cents each, and also in one volume, in linen, at 40 cents.

 THE EDUCATIONAL PRESS ASSOCIATION OF AMERICA.

 PROGRAM FOR CHATTANOOGA MEETING.

"The Scope of Educational Journalism," George P. Brown, editor *Public School Journal*, Bloomington, Ill.

Discussion, led by C. W. Bardeen, editor *School Bulletin*, Syracuse, N. Y.; Ossian H. Lang, *School Journal*, New York; G. R. Glenn, State School Commissioner of Georgia, editor *Southern School Journal*; A. E. Winship, editor *Journal of Education*, Boston, Mass.; O. T. Corson, State School Commissioner of Ohio, editor *Ohio Educational Monthly*.

"Best Ways to Secure Subscriptions," S. Y. Gillan, editor *Western Teacher*, Milwaukee, Mass.

Discussion, led by C. M. Parker, editor *School News*, Taylorville, Ill.; H. M. Pattengill, editor *School Moderator*, Lansing, Mich.; Wm. C. Smith, editor *School Education*, Minneapolis, Minn.; W. A. Bell, editor *INDIANA SCHOOL JOURNAL*, Indianapolis, Ind.

"How to Promote Advertising in Educational Journals," Wm. G. Bruce, editor *School Board Journal*, Milwaukee, Wis.

Discussion, led by J. G. Reynolds, editor *American Journal of Education*, St. Louis, Mo.; M. A. Cassidy, editor *The Southern School*, Lexington, Ky.; Tom T. McBeath, editor *Florida School Exponent*, Jacksonville, Fla.

 A DEFENSE.

It is difficult to see why such a problem as No. 10, of the Arithmetic list of State Board questions for September, should attract attention or cause adverse criticism. Dr. Aley states (page 849, *INDIANA SCHOOL JOURNAL*, December,) that the problem in question is not an arithmetical problem. "The student must know algebra, geometry and trigonometry if he is to solve the problem exactly." As well might the same criticism be made upon problem No. 1, page 307, of the Indiana Complete Arithmetic and in fact upon most of the problems in mensuration. Are all arithmetics simply "so called" arithmetics and not real arithmetics, because they contain rules for finding the areas of circles or segments of circles?

I will venture to say that the student cannot solve *exactly* the problem referred to even if he knows algebra, geometry, trigonometry and I will add calculus, for the problem of the approximate area of the circle has been carried in the calculus as far as the 100th place of decimals without termination. The value of such problems is in their practical convenience and sufficient accuracy for ordinary purposes. We surely hope that the problem got in the list by design and that the Board will continue the use of just such arithmetical problems to determine the fitness of persons to teach in the common schools of Indiana, and that, too, in spite of the so-called protests of censoriousness.

W. B. JACKWAYS.

South Bend, Indiana.

THE Kentucky State Association was held at Frankfort, December 28 and 29, 1897.

CHARLES SCRIBNER'S SONS have opened an Educational Department at 334 Dearborn street, Chicago, with Henry M. Echlin in charge.

SPENCER COUNTY.—Superintendent A. C. Huff announces that he has secured as instructors in his next institute, W. F. L. Sanders and Eli F. Brown and is expecting "up-to-date work."

MOORE'S HILL COLLEGE is more largely attended this year than last and the class of students was never better. Students never received better instructions than they are now receiving.

THE REPORT OF THE COMMITTEE OF TWELVE on country schools is in great demand. Single copies, by mail, 25 cts; ten copies, prepaid 20 cts; fifty copies 15 cts. Address Irwin Shepard, Winona, Minn.

THE OAK VALLEY NORMAL at Corydon, has been reorganized and the prospects for success are "very flattering." E. S. Hallett is president and proprietor and has started out to do thorough work and make no promises that he does not expect to fulfil.

THE READING CIRCLE BOARD had a recent meeting at which it selected a full list of books for the Y. P. R. C., but the arrangements have yet to be concluded with a few of the publishers. The books for the Teachers' Reading Circle for next year were also agreed upon.

UNION CHRISTIAN COLLEGE sends out its catalogue for its thirty-eighth year, and makes a good showing. This institution is certainly doing good honest work and deserves liberal patronage. For full information address the president L. J. Aldrich, D. D., Merom, Ind.

THE catalogue of the Indianapolis Industrial Training School certainly makes a creditable showing. It contains numerous cuts illustrating the various kinds of work done. This is one of the best schools of its class in the country. C. E. Emmerich is its efficient principal.

THE GRANT COUNTY TEACHERS' ASSOCIATION met in Marion, December 10 and 11. The attendance was very large and the interest very good. Dr. W. H. Hickman, of DePauw, and Prof. L. J. Rettger, of State Normal, were present, and assisted by local talent, made the association a complete success.

OUR FLOYD COUNTY ASSOCIATION passed off very pleasantly, Saturday morning's session being especially good, consisting of a lecture on "Science and Religion," by Prof. Charles A. Prosser; lecture on "Plato," by Rev. J. H. Ford; and a most excellent paper on "How to Study Literature," by Miss Mary Cardwill, all of New Albany.

JENNINGS COUNTY.—The school interests of this county are faring well in the hands of Superintendent M. W. Deputy. The observance of Arbor Day brought interest and good results. The work in both the Y. P. R. C. and the teachers' R. C. is better than ever before. A majority of the teachers are doing what they can in music.

THE READING CIRCLE BOARD has provided a diploma for the Y. P. R. C.

of neat design. It is to be given to persons who have done a given amount of reading and it is intended to encourage pupils to read all the books belonging to their respective grades and also to read other books from year to year. The person who designed the diploma deserves credit for good taste.

THE Reform School for Boys always observes "Indiana Day." December 11, was the eighty-first anniversary of the admission of Indiana as a State. A program was so arranged that each "Family" took a part. Hilton U. Brown, of the Indianapolis News, made an address which was well received. Superintendent Charlton knows just how to make such a celebration interesting and instructive.

THE Miami County Teachers' Association met in Peru High School building, Friday, November 26, with John D. DeHuff in the chair. The papers read and the discussions that followed were excellent. The program was carried out in every point. It was a grand meeting. Much credit is due to our president. The Association elected P. M. Hoke, of Amboy, a State University man, president, and Miss Josie Waite, of Gilead, secretary for the ensuing year.

CLAY COUNTY held an excellent association November 26-7. On Friday evening President Swain and Governor Mount both made addresses, which were highly appreciated. The work was done by the teachers of the county, and was well done. The writer was present on Saturday and was much pleased with what he saw and heard. The papers and discussions showed plainly that the teachers of Clay county are keeping up with the best educational thought. The regular institute for 1897 was not held in this county till December 20-24.

TERRE HAUTE, IND., Dec. 16, 1897.

MR. W. A. BELL, EDITOR INDIANA SCHOOL JOURNAL.

My Dear Mr. Bell:—The meeting of the Southern Indiana Teachers' Association at Terre Haute, March 24-26, 1898, already promises well. Favorable terms on the railroads, ample entertainment at very reasonable rates while in the city, and a strong program well under way assure those attending a profitable session. Details later. Yours truly,

WM. H. WILEY,

Chairman Ex. Com.

GEORGE S. WILSON, of Greenfield, has been elected Superintendent of the Institution for the Blind, to succeed W. H. Glasscock, resigned. There were about thirty applicants for the place, among them some of the best men in the state, so Mr. Wilson should consider his selection a high compliment. Mr. Wilson was promoted from the principalship of the high school to the superintendency of the Greenfield schools six or seven years ago when Mr. Glasscock resigned to accept the place of deputy state superintendent under Hervey D. Vories. He is again to follow Mr. Glasscock. He is a good man and will fill the responsible place to which he has been chosen with ability.

DEARBORN COUNTY held a County Association December 11, which was

well attended and the interest was certainly good. The work was principally by home talent. W. A. Bell was present and made an address. Miss Kate Doud read an excellent paper on literature below the high school which was discussed at some length. The general conclusion reached was in favor of having pupils commit literary gems, and in favor of teaching literature for the sake of its thought and inspiration, leaving analysis, purpose, theme, embodiment, etc., to the high school and college. Perry Canfield read a paper on "The Teacher's Social Relations," which contained many good suggestions. Prof. Bigney, of Moore's Hill College, gave a very profitable lesson in natural science. He performed a great many simple experiments that teachers might use in their schools. His suggestions in connection with this work were certainly helpful. The schools in this county are moving on smoothly and the standard is being generally advanced. Supt. S. K. Gold is certainly doing effective work.

PERSONAL.

IRA SCRIPTURE is principal at Dillsboro.

KATIE DOUD is principal of the schools at Cochran.

ANNA SUTER is still principal of the Aurora high school.

T. G. MCCALMONT is at the head of the Moore's Hill schools.

JOSEPH R. HUSTON is superintendent of the Aurora schools and good work is being done.

T. H. MEEK continues to do acceptable work as principal of the Lawrenceburg high school.

R. E. CALL continues as superintendent of the Lawrenceburg schools, and good reports reach THE JOURNAL as to the work he is doing.

ALPHEUS J. REYNOLDS, of the Greenfield high school, a graduate of the State Normal, has been promoted to the superintendency of the Greenfield schools, owing to the resignation of Geo. S. Wilson. The board has made a good selection.

D. C. ARTHUR is principal of the Logansport high school. By the way, Mr. and Mrs. Arthur had a splendid Christmas present. It arrived in good time, December 10, so as to be fully enjoyed. It weighed ten pounds. It is a girl. Congratulations.

W. H. GLIDEWELL, ex-superintendent of Fayette County, has purchased the Greensburg *New Era*. Mr. Glidewell has had considerable experience in newspaper work and under his management, this excellent paper will lose none of its old-time popularity. We wish Mr. Glidewell abundant success in this his new undertaking.

PROF. W. P. SHANNON, superintendent of the Greensburg schools, died December 16, aged fifty. One week's illness of typhoid fever was the cause. He leaves a wife and four children. He was born in Decatur County, educated at Miami University, was principal of Glendale High School, near Cincinnati, became principal of the Greensburg High School in 1875 and superintendent of the same schools in 1883, having been connected with the

Greensburg schools twenty-two years. He was a contributor to the leading educational journals and has served for several years as treasurer of the Indiana Academy of Science, of which he was a charter member.

In company with David Starr Jordan, he spent one season in Europe, where he collected much material of scientific interest. He did a great amount of original work in botany, zoology and geology. He identified and classified the plants and fishes of Decatur County. He was tendered the degree of master of arts by Indiana University as a recognition of his ability.

BOOK TABLE.

College Tidings is a new paper published by the Tri-State Normal at Angola. It is devoted to the interests of this school and will hold a high rank among the college publications of the State.

The Kindergarten Review, a direct descendent of the "Kindergarten News" is a monthly magazine devoted to educational literature and kindergarten news. It is published by the Milton Bradley Co., of Springfield, Mass. It is a choice magazine, its pages filled with the best thought and best helps for the kindergartner. It is also a thing of beauty, in both printing and binding. Every kindergartner should have it. Price, \$2.00 per year.

BUDS AND BLOSSOMS, by Willis Wilfred Fowler, of Martinsville, Ind., is a small collection of poems of considerable merit. They are neatly printed—and artistically bound in paper. One poem on James Whitcomb Riley, is a worthy rival of the efforts of our Hoosier Poet:

It kan't be long, Jim Riley, 'fore you've got to leave the toil
Ov this short life to mingle with the elements o' soil—
But ye'll make the old earth richer than she ever was before,
By the songs ye sung her children in the happy days o' yore.
And she'll sing yore old-time ditties with a gladness full and free
Of the olden, golden glory of the "days 'at used to be."

STORIES OF GREAT INVENTORS, by H. E. Macomber, published by Educational Publishing Co., Boston, Mass. The great inventors considered in this volume are Fulton, Whitney, Morse, Cooper and Edison. The stories are told in simple, child-like language and each sketch is preceded by a picture of the man whose life is considered. Many other useful and interesting illustrations adorn these pages. This book will furnish very suitable material for supplementary reading in primary schools. The same house publish in the series of *Young Folk's Library of Choice Literature*, "Story of the Norsemen;" "Æsop's Fables;" "We are Seven;" "Rip Van Winkle" and "The Three Golden Apples."

LITTELL'S LIVING AGE is one of the oldest and best magazines in the country. Founded in 1844 it is now entering upon its second half-century. It is an eclectic. It reproduces *without abridgement* the ablest articles from the leading British Reviews and translations from the French, German, Russian, Spanish, Italian and other continental sources. For the year 1898, arrangements have been made for the serial publication of a translation of

"With all Her Heart" from the French of M. Rene Bazin. This novel, originally published in the *Revue Des Deux Mondes*, aroused the greatest interest and attracted the attention of literatures in both France and England. To all new subscribers to the *Living Age* for 1898 will be sent free the eight numbers of 1897 containing the first installments of "With all Her Heart." Published weekly at \$6.00 per year. P. O. Box, 5206, Boston.

ROBERT E. LEE AND THE SOUTHERN CONFEDERACY, by Prof. H. A. White, of the Washington and Lee University, New York: G. P. Putnam's Sons. This is one in the series entitled the *Heroes of Nations*. The writer, a Virginian, writes in a very admiring manner of this southern hero. His sympathies have made him eulogistic of his subject, perhaps more so than a northerner would approve. And yet even a northerner will concede that Lee was not only a great general, but a great and good man. No loyal northerner need now hesitate to do justice to his ability and exalted character. We are all Americans and North and South can do justice with no further reluctance to each other's heroes. The story of Lee's life brings out the history of the War of the Rebellion with considerable fullness. Prof. White has had access to a great mass of records and local history. While the book has been written from a southern point of view, the author has succeeded in writing an impartial history.

MCMASTER'S SCHOOL HISTORY OF THE UNITED STATES, by John Bach Masters, Professor of American History in the University of Pennsylvania. Published by the American Book Co., Cincinnati, Chicago, New York. Price, \$1.00. In this book, the author has made prominent those great events which have an important bearing on American history, omitting unimportant incidents and details. From the beginning, the attention of the student is directed to causes and results rather than to isolated events. The colonial history has been confined to less than one-fourth of the book, and deals only with such matters as relate directly to the history of the country, and the war of the revolution does not receive extended consideration. The struggle for a government, and the forming of the Constitution of the United States receive careful treatment at the hands of the author. The causes which led to the Civil War are stated with fairness and completeness. The great campaigns are traced boldly while details of battles and skirmishes are omitted. This important part of our history is treated from a purely historical standpoint and is impartial and unbiased. The history is brought down to the McKinley administration. At the end of each chapter there is a brief summary of the principal events treated in it. These summaries will be found useful for review and blackboard work. Many maps, colored and in outline, are found on the pages, and beautiful illustrations are frequent.

WERNER'S ARITHMETIC, by Frank H. Hall, published by the Werner School Book Co., Chicago. Book I for 3rd and 4th grades and Book II for 5th and 6th grades are on our table and Book III is in press. These are not only new books but they work out new ideas. The author proceeds on the theory that all arithmetic is "mental arithmetic." He says, "As well have mental and written grammars as mental and written arithmetics." The

work of these books is so arranged that problems that can easily be solved without a pencil, precede, and prepare the pupil for the problems in the solution of which a pencil seems necessary. The so-called "mental arithmetic" feature is very prominent in these books from first to last, while there is no lack of "problems for the slate." Very large numbers are avoided. The denominators of the fractions employed are kept within ordinary business limits and the art of computation is presented without leading the pupil into unnecessarily tiresome mechanical operations with *mere figures*. In a large part of Book I and in all of Book II the topics are arranged on the "decimal plan;" that is each topic is represented on every tenth page, thus insuring at once systematic review and the proper relating of the new to the old. New terms are taught by providing for their frequent use rather than by requiring the pupil to memorize definitions at first. A few carefully prepared definitions appear near the close of each book. Pupils "learn to do by doing." The author's uniform direction is: "If the child can not solve the problem presented, *do not explain*, but give him problems that he can solve, and so lead him up to and over the difficulty."

BUSINESS NOTICES.

FINE SCHOOL PROPERTY for sale at reduced figures. Fine location; good pay. Address A. P. Thomas, Venus, Texas. 1-1t.

WANTED.—Agents to take subscription for magazine in connection with a saleable article. Big pay. Heeb Company, 30 Penn. St., Indianapolis.

HAIR on ladies' faces, moles and other blemishes removed forever. VARIN, 25 1/2 W. Washington St. Write or call when in the city. 1-3t.

THOSE who take the Business and Shorthand courses at the Indianapolis Business University secure good positions at once. Everybody knows it is the largest, oldest and best school in the State. 48th year opens Sept. 1.

SCHOOL BOARDS contemplating changes can learn the address of the best Western and Eastern teachers, willing to change places, by addressing Orville Brewer, manager of the Teachers' Co-operative Association, 101 Auditorium Bldg., Chicago. We can assure all who write of confidence and honorable treatment. 2-tf.

THE INDIANA KINDERGARTEN AND PRIMARY NORMAL TRAINING SCHOOL—Established in Indianapolis in 1882. Forty-five free scholarships granted each term. Two classes formed each year, one in September and one in February. For catalogue and particulars, address, MRS. ELIZA A. BLAKER, Superintendent, Indianapolis, Ind. 8-2t.

Headache

Hosford's Acid Phosphate.

This preparation by its action in promoting digestion, and as a nerve food, tends to prevent and alleviate the headache arising from a disordered stomach, or that of a nervous origin.

Dr. F. A. Roberts, Waterville, Me., says: "Have found it of great benefit in nervous headache, nervous dyspepsia and neuralgia; and think it is giving great satisfaction when it is thoroughly tried."

Descriptive pamphlet free on application to Rumford Chemical Works, Providence, R. I. FOR SALE BY ALL DRUGGISTS. Beware of Substitutes and Imitations.

INDIANA " SCHOOL • JOURNAL

VOL. XLIII.

FEBRUARY, 1898.

NUMBER 2.

1897.

INDIANA STATE TEACHERS' ASSOCIATION.

FORTY-FOURTH SESSION.—HALL OF REPRESENTATIVES, STATE HOUSE, INDIANAPOLIS, DEC. 28, 29, 30.

On the evening of December 28, the meeting was called to order by the retiring president, James F. Scull, superintendent of the Rochester schools. The Rev. J. Cumming Smith conducted the devotional exercises after which Miss Wellie Geeting favored the audience with a piano solo. Mr. Scull then introduced the president-elect, R. A. Ogg, of Greencastle, who delivered a most able inaugural address on the subject,

"THE PROBLEM OF THE CHILD,"

of which the following is the synopsis :

My theme is, "The Problem of the Child." The problem involves two unknown quantities—heredity and environment. Our first equation reads $x + y$ (heredity plus environment) = the destiny of the child. That natural selection and transmitted tendencies have much to do with life is beyond question. But a union of qualities in one generation may be set at naught by that succeeding. Hence x alone does not equal destiny.

But our equation may read $x - y$ or $y - x$ equals destiny according as heredity or environment involves home influences, social surroundings and the school. Thus the second term appears the more complex and should have careful consideration.

The child life is modified by its surroundings. Too many diverse influences may prevent its truest realization of the self. Too much society weakens the individuality of the child. It is the intimate associations that largely determine.

These social forces are too uncertain and others more constant must be utilized. The most constant is the home. With no forces operating save inherited ones, the mother has almost unbounded opportunity to shape character. By impatience and fretfulness, she may unhealthfully stimulate nerve tracts, or she may cause the young life to respond by growth into the beautiful. Parents will probably so impress themselves on the home

and place themselves in associations so in harmony with their own character that heredity shall be reinforced by environment, and our equation will become xy , heredity multiplied by environment, = destiny.

Just here the school takes the child. It must appeal strongly to all the good in him. But what of the teacher who is to possess herself of the forces of the school! Does she know him and appreciate him? Does she treat him as an underling? We owe much tender consideration to the children. They will come to us with all influences of ancestry and environment against them. Great conflicts will go on before us. The teacher who responds to the strivings for good will make these become the real child. The power to help lies largely in the power to appreciate. Has she personality strong enough to give to each one what he needs?

We need teachers capable of reacting upon the home and improving it; who are so inspiring that they can ennoble life. This requires great power of loving. Human love is the universal solvent of human nature. In the "Guardian Angel," Dr. Holmes makes a study of hereditary influences and reaches the conclusion that the determining force is not hereditary tendencies but personal influence.

I once visited a stove foundry and saw men grinding the parts of a stove to give them smoothness, but in the moulding room I saw them take from the furnace the liquid iron and pour it into the prepared moulds and make the parts. So human character is shaped by the fervent heat of noble natures. The public school teacher has this opportunity. She hath wrought a good work. Crown the teacher who lovingly proves the power of noble personal influence, for she, more than any other individual, solves the problem of the child.

After a cornet solo, "La Secret Polka," by Frank I. Walker, of Richland, W. H. Sanders, of Marion, addressed the audience on

"WHAT THE PUBLIC DEMANDS OF PUBLIC SCHOOLS."

Synopsis: This is assuming that there is a something called the public school, and a something else called the public, but I prefer to think of it differently. Just as I prefer to think of unity in all things, so I prefer to think of the public school as having grown into the national life—as having become a vital part of the organism. From this standpoint, then, the question becomes, not what something or somebody expects of something else or somebody else, but what may we all, working as one, hope to achieve through the institution known as the public school.

With the attendance assumed the inexorable logic of the situation demands that the curriculum be adapted to the many, and not to the few. The high school is desirable, and so are the academy and the college and the university, but the thing imperative is the common school. Since the many know little or nothing of the high school, and in the nature of things cannot know much of it, then it is demanded that the course of study in the grades shall not be prepared with a view to the high school, and the same logic requires that the high school be made as much as possible a preparation for life and not a preparatory annex to the college.

The demand upon the public school is that it be made to the utmost a preparation for life. What we all want from the public school, as well as elsewhere, is the development of manhood and womanhood. Beyond all question we are one on this proposition.

Civilization confronts not so much what ought to be as what is. This is the lesson which must be learned in the schoolroom, if possible; if not, then in the university of life most certainly. Civilization is the net result of persistent struggle with stern realities. At the very outset it faces the school-bred youngster with a condition. Its first lesson is that the "battle of life is not a figure of speech but a fact." If this can be taught in the schoolroom it means a saving of vital force that may be worth something to progress.

In all life the higher the organization the longer the life of infancy. No one thing distinguishes man from other living beings more than the prolongation of infancy. With the new-born child of man comes into the world the most helpless of beings. A third of its life is given to infancy. This is Nature. It is a condition which Nature forces upon us. It is this which makes man the most teachable of beings. In the American home to-day there is a tendency to shorten rather than to prolong this stage of life. The child is kept in a hot-house. The mind is hurried—forced. It is called development. Is it development? Does this experience really develop—or does it wither—dwarf?

A certain physical condition is indispensable to mental power, and little or nothing can be done to hurry the approach to this condition though much can thoughtlessly be done to hinder it. This is a vital fact. It requires years for the physical being to mature. There is absolutely no escape from this decree. Is it a platitude, then, to say that the hot-bed is not healthful? If there is a tendency to this in the schoolroom, then the sooner it has attention the better.

The foundation of knowledge is in the concrete. If this is true, it is of transcendent importance that we keep the thought of it in mind if we would teach, if we would achieve—if we would live successfully. This once recognized and adopted, then rules will give way to principles, and principles will be made a part of the being by empirical contact with the concrete. Then abstraction for the sake of abstraction will be relegated to mediævalism where it belongs. Then the principle underlying the object lesson will be carried through the entire school life, and teachers will teach as Nature teaches.

And this means the diffusion of knowledge—"the widest possible distribution of the extant knowledge of the world"—bearing always in mind that the public school is for the many and not for the few. The development had assumes that what the thousands most need is capacity. The truth is that they have more capacity than they have information. What they need is facts—facts that have a significance in their lives. Give the mind a fact which has significance in its life, and make it realize that significance, and you give it not only something which it will retain but development also.

The protest of the mind against the cramming process is not so much against facts as the kind and method of presentation.

One of the greatest hindrances in the schoolroom and elsewhere is tradition. This is a serious handicap to progress in every institution, in every vocation, in every life. It is the more difficult to meet and to resist for the reason that its influence is subtle and to a degree we are unconscious of it.

Closely akin to tradition is the bias of preconception—the overwhelming temptation to see things not as they are but as we want to see them. The mind that would win in any department of human activity must free itself to as great an extent as possible from both these prejudices. It is not a sufficient answer to this to say that one can not be wholly free, for of all things practicable there is none more so than a constant approach to this condition.

If by touching a button the author of this paper could produce the condition of the school that seems to him desirable, then he would touch the button and risk the consequences. There would be no six-year-olds in the schoolroom, assuming other conditions to be the same as they are now. There would be fewer hours of confinement for the younger pupils, for it is ever to be remembered that they are long, long hours to childhood. For the first few years there would be only sufficient arithmetic to enable the pupil to pursue his other studies. Physiology would come before grammar. There would be less political geography. Latin, and every other foreign language would be required to prove its claim to a place in the public school curriculum so long as the grades are denied what they need. Nine-tenths of those now in the schoolroom—perhaps all of them—would be turned back at least a year, and this would be done in the interest of economy. There would be more laboratories in the schools. Manual training would be

seriously considered. Many additional facts of science would be introduced. Physiology and biology would either precede or accompany psychology. Thorough-going Americanism would be ingrained in the being somewhat at the expense of mathematics, if necessary. There would be an attempt to give a thorough grasp of a few principles, and from these the pupil would be required to build new combinations of his own. And with all pupils in all studies at all stages there would be "reviews and reviews and reviews."

Beyond these, however, is the teacher, for while curriculum and method are important, it is the teacher, after all, that is the life of the schoolroom. It is in the personality of the teacher, that the child is to be strengthened or weakened for life.

President Ogg announced the following committees:

On Resolutions—R. I. Hamilton, Huntington; Lee O. Harris, Greenfield; Adelaide Baylor, Wabash; G. N. Logan, Glenwood; W. D. Weaver, Marion.

On Reading Circle—W. R. Snyder, Muncie; George W. Worley, Warsaw; Calvin F. McIntosh, Spencer; Miss Anna Suter, Aurora; E. B. Bryan, Bloomington.

Adjournment.

WEDNESDAY MORNING, DEC. 29.—After devotional exercises conducted by the Rev. B. A. Jenkins, the audience was favored with a vocal solo by A. D. Hitz.

Supt. W. H. Sanders, of Rensselaer, read a carefully prepared paper on

**"HOW SECURE BETTER EDUCATIONAL AND SOCIAL RELATIONS BETWEEN
TEACHER AND PATRON."**

The following is a synopsis:

To get information on this subject a circular letter was addressed to one hundred superintendents in towns and cities of Indiana. I wish to give a brief summary of the contents of these letters, leaving the facts with the Association to be accepted or rejected as each one's judgment may dictate. In some places, a system of reports monthly or bi-monthly is still maintained. Some high schools publish annuals. In one city, the G. A. R. is prevailed upon to detail one of its members to drill the boys in military tactics. In many places teachers and pupils assist in collecting and distributing food and clothing at Thanksgiving. Occasionally, lecture courses are managed by the school, an attempt being made to sandwich in one or two good educational lectures during the season. Some superintendents induce patrons to take part in the regular teachers' meeting. Again centers for university extension work are maintained by teachers and patrons. Teachers often unite with citizens in local literary clubs. In one city, there is a committee of citizens appointed by the board of education each month for the purpose of visiting the schools.

Without comment on the above, let us pass to other means earnestly commended as securing better educational and social relations between teacher and patrons.

First.—The compulsory school law is regarded as an aid in the solution of our problem.

Second.—The power of the church is enlisted in behalf of a better understanding of the purpose and value of the public schools.

Third.—Socials in which pupils and teachers unite in entertaining their parents and patrons. These are held in the evening in the high school room, a short program being rendered. Sometimes light refreshments are served and the evening is spent in social conversation.

Fourth.—Lectures or talks are given before the high school by local ministers, doctors, lawyers, mechanics, veterans, business men, county and city officers.

Fifth.—The press, the daily and weekly newspapers are utilized in keeping the work, the news, the methods, and the needs of the school before the public.

Sixth.—Special days or special exercises. These exercises which patrons are urged to attend are quite varied in character. Sometimes it is a birthday of an honored citizen of the community, or of a poet, or statesman.

Seventh.—In Indianapolis there is a Citizens' Education Society. I notice that ex-President Harrison is a member of the executive committee. Other men and women of distinction are enrolled in the same list. The example set by Indianapolis in maintaining this society is worthy of imitation by smaller cities and towns.

Eighth.—To have a good school in every room of every school building in the city; to have a school that, because of its intrinsic value, will merit and secure the respect and support of intelligent citizens.

Ninth.—Mothers' meetings. This is a department of the child-study movement, which movement, as a whole, acts directly in the solution of our problem.

Tenth.—Personal visits; the teacher in the home of the pupil, and the parents in the school building during the regular work. Generally these visits to the parents are occasioned by bad conduct or unsatisfactory work on the part of the pupil.

As to the *means* of securing better educational and social relations between teacher and patrons, I quote a few of the suggestions of superintendents. The first suggests:

"That the demands of school work be lessened to the extent that the teacher shall have a little time outside of that *stolen* from school work, to devote to his social and spiritual life.

"That the teacher shall be paid salary sufficient to enable him to make suitable return for hospitalities extended to him by his patrons.

"That the teacher shall *not* make himself obnoxious by taking his school life into social affairs, but shall do all in his power to make himself congenial to those whose hospitality he accepts."

The second suggests: "Each summer vacation the people ought to be brought together often in entertainments given by the children. The school-building closed for a long summer vacation is a monument to the indifference that every summer *unprepares* children and parents for the next year's work.

A third suggest a State library system established in connection with our public schools.

Others suggest: "More Superintendents need to impress the public with the fact that the schools are an institution to be respected. That they are not charitable institutions to care for the poverty stricken by giving them places in the corps of teachers."

I should like to add that more superintendents should impress upon the public that nieces, nephews and persons of a certain political or religious turn of mind should not be imposed upon the school as teachers simply because of their relationship, or political or religious belief. Crookedness or favoritism in the employment, promotion, and discharge of teachers will bring them into disgrace and contempt in the eyes of patrons very speedily.

Lastly let us quote from one of the ablest superintendents in the State: "I suggest that teachers of mature minds, (not necessarily *aged* people) broad scholarship, special training, and sound sense be employed. They will command the respect of the public and bring about the better educational and social relations between teachers and pupils."

From the city superintendent to his primary teacher, from the county superintendent to the teacher of the smallest district in the township, a fuller knowledge and the spirit of a student are the crying need of the hour.

Given a body of teachers with ripe scholarship, broad culture and professional training and the educational and social relations of teachers and patrons will vastly improve.

Miss Anna Wilson, of the Crawfordsville schools led in the discussion which followed this paper. She said :

"The *child* is the medium through which we must work to secure this better educational and social relation between the patrons and ourselves. We ought to make *every* effort to meet our pupils *outside* of the school-room; and we should endeavor to meet the patrons socially as often as possible. I hardly believe that the feeling of *duty* is enough to help us in our work. What we say and do should be prompted by *real love* and *genuine interest*.

"Pythagoras kept a veil between himself and his disciples that they might have the greater awe and reverence for him. Socrates walked arm in arm with the Athenian youths, talking and teaching. We follow one of these old philosophers. Which?

"In the church, the social life, in the club, we have many chances to show patrons that we are not mere parts of a great machine: 'Child study' must be extended to the high school.

"Let teachers be given the largest measure of freedom in order to adapt education to the needs of the individual pupils, freedom from competition, freedom from any necessity to train prize winners, freedom from hurry, freedom from inspection that demands definite results in a definite time, freedom from prescription of method, then this better relation between patrons and teachers will *not* be only 'a consummation devoutly to be wished, a prophesy of the future simply—but a reality established.'"

B. F. Dyer, of Albany, emphasized the point that as long as school boards place teachers of no special training along with those who have fitted themselves for the profession, we can not hope for better results.

The president read the following congratulatory telegram from Nebraska:

LINCOLN, NEB., Dec. 28, 1897.

Fifteen hundred Nebraska teachers in convention assembled send greetings. Will you join us in educational congress of trans-Mississippi teachers at Omaha next summer? Date not to conflict with N. E. A.

J. W. CRABTREE, *President*.

On motion carried, the president was instructed to send greetings to Minnesota, Illinois and Michigan State Teachers' Associations.

During recess, each congressional district selected its members of the committee on the nomination of officers as follows: 1st district, Robt. Spear; 2nd, R. S. Aley; 3rd, D. S. Kelly; 4th, Miss Leva Foster; 5th, A. R. Charman; 6th, Lee O. Harris; 7th, L. O. Dale; 8th, O. R. Baker; 9th, M. H. Stuart; 10th, Horace Ellis; 11th, W. D. Weaver; 12th, B. Clapham; 13th, Jas. F. Scull.

"THE DISTRACTING ELEMENTS IN THE SCHOOL LIFE OF THE PUPIL" was discussed by A. E. Humke, of Vincennes.

He thought the distracting elements largely lie *within* the school. Many superintendents do not give their teachers sufficient freedom of thought and action in their work. They dish out everything to their teachers thus making machines of them. Some of the superintendents, under the guise of being progressive, are given to fads. Such superintendents distract the teachers, the pupils and themselves. Some of the superintendents require too many reports of their teachers—yearly, monthly,

weekly, daily, hourly reports; too many meetings; the preparation of too many papers. Under such circumstances, how can a teacher impress the pupils with her own personality? The teacher's time belongs to the pupils and not to the superintendent.

The teacher makes the school; she must have the fullest chance for her work. She must not be dependent on any one else or she will be a distracting element. The teacher must not think that her great salvation is in talking. Talking is not necessarily teaching. She must not follow too closely the outlines of school journals. Many of the school journals are demoralizing to the teacher.

Mr. Humke objects to the society teacher, who is out at four o'clock; to the teacher with too many outside duties—letter writing, washing and ironing; to the teacher, who teaches too much arithmetic, grammar, to the neglect of the pupil's formation of habits. Janitors are often distracting elements. The yards and halls are often neglected.

Public entertainments, last day exercises, contests—physical, oratorical or other kinds—are demoralizing. Contests often tempt the honesty of pupils. The six-day bicycle race at New York, he hoped, had opened the eyes of the people to the true spirit of contests.

The working for per cents., the use of prize cards, the way some of the examinations are conducted, school papers full of silly stuff, are often distracting elements. The public library, when not properly supervised, may be a demoralizing element. Pupils, who read *too much*, can not devote themselves to their work.

Mr. Humke thought that too many studies in the course, too long hours, especially for young children, had evil influence upon the school.

Sunday Schools, conducted by teachers who do not understand the first principles of teaching, may have a bad effect upon pupils. The influence of the poorly taught Sunday School may be felt throughout the week.

Miss Laura Frazee, on program for the opening of the discussion, being absent, Mr. McCracken of the Elkhart high school, was called upon. Among the distractions of the school, he discussed socials, opera-house entertainments, pernicious reading, the environment of the pupil, the variable policy of the teacher, faulty courses of study, and the per cent. method.

T. J. McAvoy, of Indianapolis, in his discussion of the subject spoke of the distracting influences of the oratorical contests and of school exhibitions as they are usually conducted. The searching of encyclopedias on subjects on which the pupil could not possibly be informed, to be treated in orations fifteen minutes long, crushes the individuality of the orator. His mental effort is weakened in the search. Teachers should see that their pupils have something *worthy* of presentation; and not something written simply *to amuse*.

In a very practical paper, Miss Kate Moran, principal State Normal Training School discussed:

"THE UNNECESSARY BURDENS OF THE TEACHER. HOW RELIEVE THEM."

Synopsis:—A burden is anything that hinders one in the accomplishment of a given aim. It is something extraneous to the work in hand—something that in the nature of things ought not to exist.

The preparation of lessons cannot be viewed as a burden—such work is an essential part of school work. School government in itself is not a burden. It is inherent in the work and will form a legitimate part of the work as long as children, teachers, and schools exist. Teachers who look upon either of these as burdens will find but one thing in the entire school system that is not a burden—the monthly check.

In determining the burdens of the teacher we must consider the aim of school work. What are the 14,000 teachers of Indiana trying to do. They are with every power of body, mind and heart attempting to stamp the die of their own character—their noble character—upon the plastic metal consigned by the state to their care. The teacher's mission is to leave the influence of his own true life upon that of his children. Whatever prevents the accomplishment of this is a burden. What then are our burdens?

So far as their relation to the teacher is concerned, these burdens are two in number,—a negative one, insufficient salary; a positive one, a very large amount of work and worry that do not promote the aim of the work—development of pure, strong character.

So long as the teacher, from the country school teacher to the college president, receives a salary out of proportion to the demands made upon him, so long will teaching be a stepping stone to the other professions; so long will we point to the doctor, the lawyer, the writer or the minister who began life as a country school teacher; so long will we continue to wonder what might not be the generations to come if these had been retained in our schools. Is it possible to legislate on this subject? It is. When will there be legislation touching this point? When the people of our state learn to set a higher value upon the souls of their boys and girls than upon dollars and cents.

The second burden is over-work. When I see, as I do too often, an earnest, devoted, sensitive, loving teacher spending the time, that should be devoted to regaining her shattered health, in the effort to fit herself still further for her work; when I see her leave school a physical wreck, I think of the slave owners who did not hesitate to work even an excellent slave to death because he could secure another for less than it would cost to prolong the life of the one.

A school system that ruins the health of the teachers is wrong. A teacher ought at least to have the consideration afforded to criminals, whose wretched life the state provides shall not be shortened while they pay the penalty of their crime. Even when overwork does not undermine the health of the teacher, does it not render his work lifeless and mechanical? Does it not deprive him of that vitality without which there can be no true teaching.

One need not be learned in states-craft nor informed in political economy to see that it is poor economy to overwork and underpay a faithful servant. And the State of Indiana has no more faithful servants than the loyal army of teachers that devote their time, their energy and sometimes their lives to her service. As to burdens that may be removed there are two in number; those which may be removed by the teacher himself, and those that may be removed by appropriate legislation. Burdens of the first class fall into three groups; first, those that arise from a lack of sympathy between the parents and the teacher; second, those that arise from the glaring imperfections, the inexcusable weakness and the gross inability that we endure in our own souls; third, those that arise from a lack of professional courtesy. Many of our burdens, including the financial one, arise from the disloyalty of teachers one to another. We are not brave enough to help a fellow teacher by a word of timely advice or warning but we are often all too ready to point out his faults to others. We do not stand up for the honor of our profession; we do not take pride in it. In the matter of securing positions teachers are sometimes guilty of actions that would disgrace any profession.

As to burdens that may be removed by legislation, the first arise from

the lack of harmony in the courses of study used in the town and cities of the state.

The migratory part of our population resides in the cities and the changes are so frequent that often it is well nigh impossible for the teacher to move forward in the work as planned by her own superintendent. The effect upon the child is to destroy his faith in school, and no wonder when one school condemns what another lauds.

The second burden in this class is the presence in the school of abnormal children. These may be defective in senses, deformed in body, feeble in mind, diseased in body, or corrupt in mind. They are a burden to the teacher and to the school.

A third burden is the inferior text-book. Uniform text-books have been a great benefit. Uniform books, the best to be had would be a still greater benefit. A text-book should be adapted to the grade for which it is designed.

A fourth burden is the lack of these same defective text-books. There is a question as to whether it would be well for the state to supply the books. Some States find this an excellent plan.

A fifth and perhaps the most galling burden to the teacher's shoulders is the inefficiency of their superior officers—township trustees and school-boards; county and city superintendents. It is to be hoped that ere long the election of not only the county superintendent but also that of the township trustee will be removed from the realm of politics and made dependent upon efficiency; that the trustee will not be hampered by any work except school work and that the salaries of both offices may be increased so as to make it possible for us to have as our superior officers men really our superiors in every sense. A law requiring applicants for these offices to pass an examination is the remedy for this evil.

All our burdens will be removed when our superior officers see with the devoted head master of Uppingham—Edward Thring—that "nothing should be left to the ingenuity of the teacher that can be accomplished by mechanical means" and that "a teacher must have time to live in order that he may teach others how to live."

In the discussion which followed this paper F. L. Jones, of Tipton, said he was opposed to too many teachers' meetings. He thought it was well to let competent teachers choose their own lines of study.

W. R. Snyder, State manager of the National Association, said he was not in favor of this Association pledging itself to take part in the trans-Mississippi meeting. He thought this meeting would detract from the journey east next summer.

In response to the greeting of the Nebraska teachers, J. W. Carr of Anderson, moved that this Association express its inability to attend the trans-Mississippi meeting at Omaha next summer. The motion was carried.

On motion of W. R. Snyder the Association appropriated \$75 to be expended in the interest of the National Teachers' Association to be held at Washington, D. C.

WEDNESDAY EVENING, DEC. 29.—President Ogg read congratulatory telegrams from the State Teachers' Association of Idaho and from the citizens of Washington, D. C., who assure the Association of a warm welcome next July.

The audience was then favored with a piano duet by Misses Wellie Geeting and Belle Reger, Indianapolis.

The annual address was delivered by William Hawley Smith, of Peoria, Illinois, on,

"THE COMMON PEOPLE AND THE COMMON SCHOOLS."

As Mr. Smith arose to speak, he was greeted with hearty applause. He began his address by quoting the words of Abraham Lincoln: "God loved the common people, so he made lots of 'em" "The thing that impresses me most," said the speaker, "is the 'lots-of-'em ness.'" (Laughter.) He then quoted the first three words of the constitution of the United States. "We, the people" which was practically the theme of his lecture. "We, the people—*We!* It is first person, plural number, and is lots pluraler (laughter) than most of us realize. It means all of us, and all the people in this city, all the people in this State, and all the people in the sister states and territories. Now, it takes lots of nerve for people to be wholly democratic, or wholly republican, and believe all that those three words imply. I say it takes all our nerve to be genuinely democratic on this subject. Now, let's see: How many of the common people do you know that you want nothing to do with." The words "republican" and "democrat," Mr. Smith used synonymously Both words mean "the people." He said that the republic of the United States is the greatest attempt at republicanism ever conceived and that it is the only republic under which all nations, all colors, all classes are included under "We, the people."

"All men are born equal so far as their right to live and their rights under the law are concerned, but the equality goes no further than this. We are *very unequal* in ability, in tastes, in desires; one excels along one line, another excels along another line." Here the lecturer urged the teachers to exert more individuality in their work and to teach the child that to which he is naturally inclined. He objected to children being driven through in droves as though they were all exactly alike.

Mr. Smith thinks too much stress is laid on *literary* education, to the exclusion of the education that fits the great mass of the common people for the work they have to do, whether it be work in a store, in an office, in the shop, or in the kitchen.

"A farmer with four or five sons moves into town for the purpose of educating his children so they won't have to work as hard as he did. The sole idea is that when the children have received an education—magic word!—they will not have to work. After a few years in town, these boys part their hair in the middle and strut up and down the street, veritable dudes; but what can they do? Can they get a job, or can they hold it when they get it? In fact, are they fit for anything except professional work? And the old farmer has forgotten that all can not be professional men, and that the education which he has given them was outlined by our ancestors generations ago, and was intended primarily as a mere beginning for those who were to become ministers, doctors or lawyers, or for the sons of aristocracy who could live without work.

"The washerwoman works hard all day at the washtub to save sufficient money to educate her daughter, that she may not have to work as hard as her poor mother. May not that mother be instilling damnation into her daughter's soul by teaching her that with an education she will not have to work. The chances are that the daughter will not make as true and noble a woman as the old mother.

"An educated man is one who has so developed the powers within him that he can do well what he undertakes to do." To illustrate this view of education, the speaker told a thrilling story of a locomotive engineer who took his train safely over a perilous road at great speed, unmoved by the little things that might have so alarmed the nervous and untried man, as to cause the death of hundreds of people.

"It is a mistaken idea to think that only college-bred men are educated men. Thousands and thousands of educated people have never seen a college. He alone is educated, who is master of some one thing—no matter whether he learned it in the school of experience or in the college hall. So fellow teachers, by developing the pupils along the line that nature intended for them, you will greatly benefit and improve mankind." The gestures and mannerisms of the speaker added much to the enjoyment of the lecture.

After a cornet solo by Supt. E. H. Drake, of Kentland, the Committee on Teachers' Reading Circle made the following report, which was adopted.

Your committee on Teachers' Reading Circle having learned that at the meeting of this Association last year a committee was appointed to prepare a plan for the re-organization of the Reading Circle Board, called a conference of the two committees on re-organization and unanimously concurred in that report.

And with the same unanimity your committee asks for its adoption by the Association.

Respectfully submitted,

W. R. SNYDER, *Chairman.*

The Committee appointed to prepare a plan for the re-organization of the Reading Circle Board submitted the following report, which was adopted:

1. The Indiana State Teachers' Association hereby constitutes the Board of Directors for the Indiana Teachers' and Young People's Reading Circles, and adopts the following rules and regulations for its government.

2. The aforesaid Board of Directors shall be composed of seven members, including the State Superintendent of Public Instruction who shall be *ex-officio* a member of the Board. Of the remaining six members, at least one shall be a county superintendent, at least one a city superintendent, and the remainder shall be chosen from the teaching profession at large.

3. No member of a publishing firm, or agent for such firm shall be eligible to membership on this Board. Should any member of this Board become a member of a publishing firm or agent of such firm within the term for which he was appointed to this Board, his membership herein shall immediately cease, and the State Teachers' Association shall at its next meeting fill the vacancy thus arising for the unexpired portion of said term.

4. The members of this Board, except the State Superintendent whose membership shall be concurrent with his incumbency of the state superintendency, shall be appointed by the State Teachers' Association in annual convention for a term of three years or until their successors are appointed, but the first Board shall be composed as follows: D. M. Geeting, State Superintendent, *ex-officio*; Miss Adelaide Baylor and W. H. Senour, whose terms shall expire December, 1898; D. K. Goss and J. A. Woodburn, whose terms shall expire December, 1899; and Mrs. Emma Mont McRae and Howard Sandison, whose terms shall expire December, 1900.

5. Should any member of the Board of Directors leave the teaching profession or quit active school work, his membership shall immediately cease. At each annual meeting of the State Teachers' Association, the Association shall fill all vacancies for the unexpired portion of such terms.

6. The officers of this Board shall be a president, a vice-president, and

a treasurer, who shall be chosen annually from the membership of the Board, and a secretary who shall not be a member of the Board and shall be chosen annually.

On the last day of each annual meeting of the State Teachers' Association, the members of the Reading Circle Board of Directors shall meet and organize for the ensuing year.

7. The members of the Board shall receive a per diem of four dollars, and actual expenses, for all time employed in discharging the duties devolving upon them as members of said Board; but no member shall receive any additional per diem or salary as an officer of the Board. The Board shall allow and pay the secretary such reasonable salary as will be a fair compensation for the duties performed.

8. It shall be the duty of this Board to plan a course of reading, from year to year, to be pursued by the public school teachers of Indiana, to provide for examinations on the said course and to prepare questions for the same, to issue certificates to such teachers as pass the examinations satisfactorily, and to issue diplomas to such teachers as pass the examinations in four successive years satisfactorily.

It shall also be the duty of this Board to plan a course of reading, from year to year, to be pursued by the pupils in the public schools of Indiana, and to make such rules and regulations as to examinations, certificates, and diplomas, in this Young People's Reading Circle, as the Board may deem desirable and practicable.

It shall be the further duty of this Board to select the books to be read in such teachers' and young people's courses, to make the most favorable terms with the publishers as to prices of such books to members of the two Reading Circles, and to provide a plan for a convenient and an inexpensive distribution of the books to the teachers and pupils.

9. At each annual meeting of the State Teachers' Association, this Board shall make a report of the receipts and disbursements for the year just closing and of such other items as in its judgment shall be of interest to the Association or as the Association shall from time to time request. At each meeting of the Association an auditing committee shall be appointed for the coming year, to audit the books and accounts of the Reading Circle Board. At each meeting of the Association, the report of this auditing committee shall be appended to the report of the Board of Directors and shall be a part of the report of that board to the State Teachers' Association.

10. This constitution, rules, and regulations may be amended, revised, or annulled by a majority vote at any annual meeting of the Indiana State Teachers' Association.

Respectfully submitted,

| | |
|-----------------|--------------|
| R. I. HAMILTON, | } Committee. |
| H. G. WOODY, | |
| J. O. LEWELLEN, | |

To audit the accounts of the railroad secretary, the president appointed J. H. Tomlin, of Shelbyville; W. H. Senour, of Brookville, and S. A. Harris, of Greencastle. Adjournment.

THURSDAY MORNING, DEC. 30.—Devotional exercises were conducted by the Rev. C. N. Sims, of the Meridian street M. E. Church.

In the general Symposium on the equipment of the teacher, Superintendent D. T. Powers, of the Paoli schools, presented the first paper, entitled

"PROFESSIONAL AND SCHOLASTIC TRAINING OF TEACHERS."

It is plain that the academic course should do two things for the prospective teacher. It should afford the means for self culture and furnish in a

large part the material for the work of teaching. Only by a process of broad culture can the teacher's native endowments of mind and heart be liberated. It is generally accepted that the elementary teacher should have an academic education equivalent to a four years' high school course; the teacher of secondary schools, a good college education. Adequate preparation demands, at least that the teacher's knowledge be equal to the drafts of his daily work plus the loss of friction.

Professional training embraces work along theoretic and practical lines. Owing to the vital relation, existing between the laws of pedagogy and the principles of the mind's activity and growth, too much stress cannot be placed upon the value of a good working knowledge of psychology to the teacher.

The courses of study in technical and professional schools are everywhere being extended and the entrance requirements increased.

There is no aristocracy so becoming to American soil as that of intrinsic worth; no line of educational progress so becoming, so safe as that of excellence. There is no one upon whom greater responsibility rests, in this regard than upon the teacher; there is nothing that will so aid the teacher as efficiency of preparation.

"SELF PREPARATION OF THE TEACHER"

was then discussed by Mrs. Emma Mont McRea, of Purdue University. In the course of her remarks she said:

"The attitude of a teacher toward his work means much. He must look upon life from the beneficent side; he must be tolerant with intolerance. The teacher must be reverent in spirit, reverent toward the child; he must see in actual life the presence of a beneficent God. With the religious view the teacher must have a view of philosophy—not that philosophy obtained from books, but that obtained by coming in contact with the *people*. The teacher must get outside of himself, if he would understand the lives of others; he must come into close, sympathetic touch with all classes of people if he would *feel* the brotherhood of man.

"What can a teacher do to prepare himself? Think of God; believe in life; and love his fellow-man."

"EXPERIENCE AS A PREPARATION OF THE TEACHER,"

Was considered by D. M. Geeting, Superintendent Public Instruction.

He thought that experience was one of the very best helps to the teacher in his work. The trials that come up in every day life are the best means of combating the puzzlers of the future. One of the prominent educators of the State, he said, whose manner of overcoming difficulties excited the admiration of his friends, on being questioned as to where he got his ideas of doing things, said that he had learned to meet new emergencies from his own personal experience on some former similar occasion. Mr. Geeting spoke of the great value of reflection on the part of the teacher over the work of the day, and of the trust in lessons taught by that experience.

Superintendent R. I. Hamilton, chairman of Committee on Resolutions made the following report, which was adopted:

1. *Resolved*, That we hereby express our sorrow at the death of our esteemed brother, Superintendent W. P. Shannon, of Greensburg, who, in the prime of a vigorous manhood, has so recently passed from his valued work among us to the beyond; and we extend to his grief-stricken family our tenderest sympathy.

2. *Resolved*, That we extend to the custodian of the State House our thanks and appreciation for the intelligent and gentlemanly manner in which he and his assistants have ministered to our comfort and convenience during this meeting.

The Auditing Committee of the Reading Circle Board made the following report :

We the Committee appointed to audit the books of the Indiana Reading Circle Board, would submit the following as the results of our investigation :

| | |
|---|----------|
| Balance on hand Dec. 28, 1896..... | \$361 80 |
| Receipts—Rebates from Book Publishers | 3252 82 |

| | |
|--|-----------|
| Making total receipts to date, shown by Secretary's Books..... | \$3615 62 |
|--|-----------|

| | |
|--|-----------|
| Dec. 30.—The expenditures to date, consisting chiefly of the salary of the Secretary, the traveling expenses and per diem of members, all paid out on warrants by the Secretary and held by the treasurer, and tallying with the books, amount | \$2699 79 |
|--|-----------|

| | |
|-------------------------------------|----------|
| Leaving a balance to date, of | \$915 83 |
|-------------------------------------|----------|

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|--|------------|
| R. I. HAMILTON, H. G. WOODY, J. O. LEWELLEN, } | Committee. |
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The audience was then favored with a vocal solo, "The Clang of the Forge," by L. D. Eichhorn, of Logansport. In response to a hearty applause he sang "Barbara Freitchie."

The Committee on nominations presented the following names for the ensuing year, which were endorsed by the Association:

President, F. M. Stalker, Terre Haute; Permanent Secretary and Treasurer, J. R. Hart, Lebanon; Recording Secretary, Miss Emma B. Shealy, Delphi.

Executive Committee :—W. S. Almond, chairman, Delphi; E. B. Bryan, Bloomington; Anna B. Suter, Aurora; W. H. Glascock, Hancock Co.; C. L. Hottel, Portland; W. E. Storn, Lafayette; George H. Mingle, Churubusco.

Vice-Presidents :—C. N. Peak, Princeton; W. H. Hershman, New Albany; C. S. Meek, Terre Haute; J. P. Forest, Butler College; F. L. Jones, Tipton; S. L. Heeter, Converse; A. T. Reid, Winamac.

On motion carried that a legislative committee of three be appointed to represent this Association on legislative matter, the president re-appointed R. I. Hamilton, Huntington; J. N. Study, Ft. Wayne; D. K. Goss, Indianapolis, with the State superintendent an *ex-officio* member.

J. R. Hart, permanent secretary of the Association, read his report, which was accepted and ordered spread on minutes.

The committee appointed to audit the books of the railroad secretary reported that they had investigated his books, and found them to be correct.

As auditing committee of the Reading Circle Board, the president appointed J. F. Scull, Rochester; W. P. Hart, Covington; John Cooper, Brightwood.

No further business being presented the Association adjourned.

EMMA B. SHEALY, *Secretary*.

R. A. OGG, *President*.

ENGLISH SECTION.

The annual meeting of the English section of the secondary schools was held on the afternoons of December 28 and 29. In the absence of the president, the secretary, Mr. E. O. Holland presided.

The paper for the first afternoon was on "*The Scope and Purpose of English Literature in the Secondary Schools*," by Mr. Sidney C. Newsom, of the Indianapolis Industrial Training School. In his conclusion Mr. Newsom said :

"The purpose of a course in English literature for secondary schools is (1) to enable the pupil to understand the expressed thoughts of a limited number of the great authors and incidentally to furnish him with the means of extending that acquaintance. (2) To cultivate a love for good books. * *

"Of the many charges made against teachers of English there are two that are just. It is claimed that we attempt in a greater or less degree to teach what can not be taught, and that we have no definite system or method of instruction. There is an impression that literature broadens the mind, educates the sympathies and cultivates the taste, and it is perfectly true that this is so ; yet, this is not the thought that should be uppermost in the mind of the teacher. It is believed, indeed, that perfectly sound instruction may be given and the best results obtained by one who realizes very vaguely how the mind is broadened. There are some things forever beyond the scope of direct academic instruction and this matter of taste is one of them. The only thing about which a teacher need feel anxious is that the pupil understand as fully as he may the price of literature. Taste will take care of itself, and the least said about it the better. The best we can do is to give careful instruction in our subject and trust the rest to the pupil. As a matter of fact, we have no direct and sure insight into the processes of the human mind and at best can only guess at the precise effect of training in this or that branch.

"It would seem that all subjects contribute in some degree towards refinement and culture and it is presumptuous to make decided and specific distinctions. The insistence that literature is the culture study *par excellence* has caused confusion. It is this prejudice, in fact, which has prevented the acceptance throughout the country of some definite and rational method of study. It is this opinion that has caused high school teachers of English to begin with young pupils exactly at the point where we should have them. We are falsely ambitious in that we attempt too much, and end by doing little well. The study of English literature does not end with the high school and our work should be estimated upon the basis not of quantity but quality."

The discussion of the paper was opened by Wm. E. Smyser, of DePauw University. He put himself without reservation in favor of Mr. Newsom's methods as set forth in his paper and had little to say because in such hearty sympathy with the writer's views, other than to emphasize the fact that pupils should become familiar with good literature before they reached the high school, that they may be ready to follow their bent through the four years' course of the secondary school.

Mrs. Lois G. Hufford, of the Indianapolis High School, agreed with the writer but thought more could be done with our boys and girls by enriching life and developing character through the study of literature. She held that boys and girls were thinking deeply on problems of life ; that they are young philosophers, shy and reserved ; that it is the duty of the teacher to recognize that the pupils are undergoing an intense stress of feeling, and,

therefore, this side must not be left out of the instruction. She believed that reading was good, but only the foundation of the real study of literature.

In answer to the question, "*To What Extent Must Secondary Teachers Meet the College Requirements?*" Prof. Martin W. Sampson, of the State University, said :

"The secondary schools should confine themselves to a certain limit of suggestive books, whether they were those of the required list or not. The question that concerns the college professor is, 'Does the student read intelligently?' If so, he will meet the college entrance requirements without difficulty. Let the secondary teacher make his teaching tangible."

After short discussions on the few questions placed upon the printed program, the meeting adjourned.

On Wednesday afternoon, a committee was appointed to elect officers for the ensuing year, after which Prof. Chas. J. Sembower, of the State University read a paper on "*The Study of Plot in Literature.*" He illustrated plot study by outlining Scott's "Old Mortality," showing clearly that study of plot means more than study of structure.

Miss Charity Dye, of the Indianapolis High School, read the second paper of the afternoon on "*Power Gained by the Study of Fiction in Secondary Schools.*" She said :

"An intensive study of fiction, as of other forms of literature, leads to a conscious acquisition of power ; power used in the sense that it is in physics, the ability to do work in a given time ; power not only to handle a book and tell what is in it in the terms of self, but power to do this promptly, easily and in a pleasing manner. Power through the study of literature including fiction may be consciously increased along the lines of acquisition, interpretation and expression. Fiction attracts the student because it is a transcript of life and as such exercises his feeling, thinking, and willing powers. It gives him language, discipline, literary insight, and taste and helps him to literary expression. Its final result is in the power that comes uncalled for, and that is indefinable, and that enables one to read the poetry of affairs and to enjoy a more abundant life."

A general discussion followed. Report of committee was accepted and the meeting adjourned.

The officers elected for ensuing year were Chas. Thomas, State University, president ; Sidney C. Newsom, Indianapolis Industrial Training School, vice-president ; Miss Minta Allen, Anderson, secretary.

BEATRICE S. FOY, *Sec. pro tem.*

E. O. HOLLAND, *Pres. pro tem.*

CLASSICAL SECTION.

The Classical Section of the State Teachers' Association met in the Senate Chamber of the State House, Dec. 28, '97, 2:00 P. M., with Dr. Post, of De Pauw, in the chair, and Miss Cora Bennett, Marion High School, as secretary. The following papers were presented :

1. "*Greek in High School,*" Miss Levona Payne, Indianapolis High School.

2. "*The Classical Library of the Secondary School, and How to Get It,*" H. A. Hoffman, Professor of Greek, Indiana University. (The writer

being absent, by consent of meeting, this paper was read by Mr. Johnston, Professor of Latin, Indiana University.)

3. "*Reading at Sight in the Secondary Schools*," Miss Myrtle Abbot, Knightstown High School.

4. "*Examination or High School Certificate as a Test of Fitness for College*," W. T. Ayres, Academy of De Pauw.

After discussion of papers, the election of officers for the following year ran as follows: President—Miss Mariana Stubbs, Richmond High School; vice-president—Demarchus Brown, Indianapolis University; secretary and treasurer—Miss Cora Bennett, Marion High School.

PRIMARY SECTION.

The Primary Section had a very interesting meeting. The room, even when filled to its utmost capacity, could not accommodate those eager to attend and many were turned away.

Miss Nebraska Cropsey, of Indianapolis, read an exceedingly interesting paper on a phase of Child-Study. The Ratio Method was clearly and concisely presented by Mrs. E. E. Olcott, of Charlestown. Mrs. A. E. Dillon, of Rochester, opened the discussion in a brief but excellent talk. The subject awakened such interest that the general discussion overran the time allotted to it, and had to be closed by the president, Mrs. Sarah E. Tarney-Campbell. "*What is the Best Literature for the First Year Grade?*" was ably handled by Miss Gertrude Robinson, of Terre Haute. Miss Lida Cline Brooks, of Anderson, read a fine paper on "*Why is it Wrong to Have all Myth or all Science Work in the Primary Grades?*" The discussion revealed that the majority of those present believe that carefully chosen myth and fairy tales have an important place in the primary grades. "*Systematic Games*" was omitted owing to the absence of Miss Frances Benedict, of Worthington. Miss Mabel Shirley, of Martinsville, read a bright, suggestive paper on "*How Far Should Original Investigation be Carried in the Nature Work in the First and Second Grades?*" The Round-Table discussion of "*The Relation of the Kindergarten to the Primary School*" was opened in a clear, engaging way by Miss Winona Douglass, of Indianapolis. Owing to the shortness of the afternoon, the general discussion of the last three subjects had to be entirely omitted. We regret that we were unable to learn the names of several ladies who opened discussions.

Mrs. Campbell declined renomination; Mrs. E. E. Olcott was unanimously elected president for the next year. Mrs. Campbell consented to be chairman of the executive committee.

MUSIC SECTION.

No report was furnished the JOURNAL but it is assured that the meeting was well attended and profitable and the program in the main carried out. The following officers were elected for the ensuing year: President, J. S. Bergen, of Lafayette; Vice-President, Mrs. Mary B. Lincoln, of Ft. Wayne; Secretary, J. M. Black, of Worthington.

Executive and Program Committee: W. L. Miles, of Ft. Wayne; Mrs. Charlotte M. Longman, of Terre Haute, and W. E. M. Browne, of New Castle.

MATHEMATICAL SECTION.

The Mathematical Section of the State Teachers' and College Association convened at 2:00 P. M. on Thursday, Dec. 30, in room 29 of the State House.

Prof. T. G. Alford, of Purdue, read an able paper on "*Algebra and Nature*" in which he showed the need of improvement in the teaching of algebra—better teaching of the properties of numbers, better teaching of the variable and of the theory of limits, better teaching of the equation showing the relation between algebra and geometry and between algebra and nature. This paper provoked much discussion and led to the expression of many valuable thoughts.

Miss Eva Lewis, of the Huntington high school, then read an inspiring and helpful paper on "*Geometry and Nature*." She cited the question always asked by pupils, "What is the use of geometry?" and suggested that it be answered by showing them that the great idea in the universe is construction according to geometric principles. Then, having by this device made geometry attractive to the pupils, she would lead them to abstract thoughts which is true geometry.

Prof. J. P. Naylor, of De Pauw closed the program with an interesting paper on "*Elementary Physics and Mathematics*." He entered a protest against the hap-hazard manner in which the place of physics in the curriculum seems to be determined. Physics is a branch of mathematics and should not be taught until after algebra and geometry. He also showed that in secondary schools the laboratory should be used to illustrate principles not to develop them.

The Section voted that in the future the meeting shall be held on the afternoon preceding the opening of the General Association, as many wish to leave the city on the last afternoon and the other afternoon is devoted to the High School Section.

The following officers were elected: President, Prof. A. S. Hathaway, Rose Polytechnic Institute; Vice-President, Mr. Alonzo Abbott, Evansville high school; Secretary, Miss Amelia Waring Platter, Indianapolis high school.

Executive Committee: Mr. John C. Trent, Indianapolis high school; Prof. J. A. Miller, Indiana University; Mr. Daniel Freeman, Elwood high school.

COUNTY SUPERINTENDENTS' SECTION.

The county superintendents held an unusually interesting meeting. Supt. Lee O. Harris read a paper on "*The Consolidation of District Schools*." This paper attracted more attention than any other paper that was read before the General Association or any of the sections. The subject is attracting wide-spread attention. Mr. Harris stated that there are a great many *small* country schools—many of them not averaging more than ten or fifteen pupils. He argued that such schools are demoralizing to both pupils and teacher. A pupil to do his best work needs the stimulus of classmates. All such schools should be consolidated with other schools even if pupils have to travel further to reach the new school.

Mr. Harris argued further that in many instances it would be best to have one central school in each township and have it well graded and well taught, even if the township had to pay for the transportation of all the children who lived more than two miles from the school house. He insisted that the money to pay for this transportation would be saved on salaries and that the schools would be greatly improved.

"*The Need of Closer Supervision for District Schools*" was ably discussed by C. F. McIntosh, superintendent of Owen County. Owing to the vast amount of clerical work that is now imposed on the superintendent, he can not give the schools the supervision they need. The superintendent should have help or be relieved of this work.

The new compulsory school law was discussed and universally approved in its main features. All agreed that the law should be amended so that pupils should be required to attend school the full school year instead of only twelve weeks as now required.

A. L. Gary, of Rush Co.; Lawrence McTurnman, of Madison Co.; and Isaac F. Myer, of Carroll Co.; all read good papers on strictly professional subjects.

W. E. WINEBURG, *Secretary*.

E. G. MACHAN, *President*.

THE ACADEMY OF SCIENCE.

The Academy of Science held an interesting meeting and many papers were read. The following officers were elected for the ensuing year :

President, C. A. Waldo, of Purdue University ; Vice-President, C. H. Eigenmann, of Indiana University ; Secretary, John S. Wright, of Indianapolis ; Assistant Secretary, A. J. Bigney, of Moore's Hill College ; Treasurer, Dr. J. T. Scoville, of Terre Haute ; Press Secretary, G. W. Benton, of Indianapolis.

The ex-officio committee, composed of ex-presidents of the academy, is as follows : Thomas Gray, Stanley Coulter, Amos W. Butler, W. A. Noyes, J. C. Arthur, J. L. Campbell, O. P. Hay, T. C. Mendenhall, John C. Branner, J. P. D. John, John M. Coulter and David S. Jordan.

HIGH SCHOOL SECTION.

There was a large attendance of high school teachers. "*The Relation of High School Curriculum to Higher Education and to Life*" was the subject of Dr. R. J. Aley, of Indiana University, and the general discussion was lead by Robert Spear, of Evansville. Under the general head of "*Management*," papers were read by and talks were given by D. R. Ellabarger, of Richmond ; Miss Adelaide Baylor, of Wabash ; D. K. Armstrong, of Peru, and A. E. Humke, of Vincennes. These discussions were each limited to ten minutes. The section finished its program and elected the following officers: President, S. B. McCracken, of Elkhart ; Vice-President, T. M. Walker, of Sullivan ; Secretary, Miss Martha E. Brown, of Greencastle.

Executive Committee : J. E. Neff, of Portland ; T. I. Walker, of Richland ; Miss Baylor, of Wabash, and Miss Abbott, of Knightstown.

COLLEGE ASSOCIATION.

The college men held a very interesting meeting and carried out their program to the letter, with the exception of one paper, whose author was detained on account of sickness. W. L. Bryan, of Indiana University was president. The officers for the coming year are : W. T. Stott, of Franklin College, President ; Chas. R. Dryer, of the State Normal School, Vice-President ; Andrew Stevenson, of DePauw University, Secretary ; Glenn Culbertson, of Hanover College, Treasurer.

TOWNSHIP TRUSTEES.

The township trustees held their annual meeting and this has become a permanent feature of the holiday educational meetings at Indianapolis. Among the matters discussed by the trustees were "*How to Best Care for the Poor*," and "*The County Auditing Board*." These discussions were spirited and certainly profitable. The following officers were elected :

Benjamin F. Johnson, of Benton Co., Pres. ; B. F. Sherrick, of Hamilton Co., Vice-Pres. ; J. D. Ball, of Tippecanoe Co., Sec. ; W. E. Males, of Evansville, Treas.

The following committees were also chosen : Executive Committee—P. Lyon, of Porter ; Thomas Flynn, of Cass ; David B. Hostetter, Putnam ; W. Trittip, Hancock. Legislative Committee—Marion Clark, of Marion ; Eli P. Haymaker, Johnson ; W. Trittip, Hancock ; B. S. Moore, Boone ; Thomas Flynn, Cass ; B. K. Kramer, Tippecanoe ; S. B. Ensminger, Hendricks ; George W. Tooney, Rush ; W. E. Males, Vanderburg ; N. V. Martin, Cass.

ON OBSERVING CHILDREN.

SANFORD BELL, N. I. NORMAL SCHOOL.

II.

In the first kind of observation indicated in the previous article the observer made and recorded continuous observations on individual children. Such observations are in a sense biographical and are intended to cover both physical and mental characteristics. If made count for all they are worth they will result in a relatively clear insight into the disposition, the temperament, the individuality of the child ; and all successful instruction and management are directly dependent upon such insight. In the second kind, the observer was directed to take note of particular acts or events and seek their explanation. Directing the attention to the details of any act or series of acts, he is to search out the mentality corresponding to such details ; to use the objective manifestations as a means of getting at the subjective state.

This subjective state is to be studied in a many-sided way. Its individual characteristics are to be found out ; its relation to other mental states is to be seen. In other words, it is to be studied in its individual and universal aspects—it is to be interpreted. A very vital point for the observer to notice is the *relation between* the mental state and the objective expression. The mental state can only be known in terms of the expression, but there are at least three places where the attention of the observer may be absorbed : in the *objective manifestation* ; in the *subjective state* ; in the *relation between* the two. The *relation* is the thing of primal importance to the educator. The ordinary observer seldom gets beyond the *objective expression* ; the psychologist emphasizes the *subjective state* as such, employing the objective sign only as a means of getting at the nature of the mental phenomenon. The efforts of the true educator are concerned with the *relation between* the two. That is, he is constantly using one to affect the other. He is crystallizing mental experience into the objective deed, and again using the deed to modify the mental experience. His ultimate emphasis is upon the deed. Education's purpose is to bring the *most intensive individual existence* into harmony with the *most extensive social life*. This is done through *conduct*, the real thing which the educator must use as an immediate means and seek as an ultimate end. But finally, it stands thus : The educator, through the deed discovers the mental state ; by touching the mental state he affects the consequent deed, which reacts upon the mental state, which in turn reacts upon the deed, and so on *ad infinitum*.

What has all of this to do with the second kind of observation? As the main result of the first kind is an increased insight into the disposition, the temperament, the individuality of the child, this second kind results chiefly in an increased insight into the nature of mental states *as such* and their *relation to expression* in the life of the child. Likewise, all successful instruction and management are directly dependent upon this *second* named insight. While the *characteristic* results of each kind of observation are as stated above, they very materially reinforce each other.

We have said that this second kind of observation is somewhat fragmentary. The term must not be misleading ; it was used to distinguish the first from the second rather than to define the

latter. While it is true that the act or event observed may at first appear as an isolated thing, its interpretation is soon seen to be impossible without considering it in its setting. And right here is one point that will distinguish the good observer from the poor one; the latter will be utterly incapable of taking in the situation completely enough to report all of the conditions that are really present and upon which the safe interpretation of observations depends. Many of the returns sent in to me are worthless because the observer has omitted some of the important conditions under which the event occurred. Here the necessity for foreknowledge, for scientific preparation is keenly felt. But nowhere is it more true that we "learn to do by doing" than in this realm. The scientist who is so able to give the wholesome directions, and from whom we get much of our scientific insight, was himself once a neophyte. He will have truly to acknowledge that his own penetrating eye and keen scent for essential details are primarily the result of a long period of actual observation and that his skill was reluctant in coming to him. Let us make use of the information he gives, in more quickly acquiring the skill which comes only through practice. The following illustrations will serve to exemplify the points I've been endeavoring to expose in discussing this second kind of observation. They are actual observations that were made by the members of my class in *Genetic Psychology*. For convenience, I have arranged them in groups as follows:

GROUP I.

1. A child of five had harnessed his little dog to a cart. When the dog wouldn't go, the child kicked him. On being reproved he said, "That's what my papa does to his horses."
2. A little boy of six and a little girl of four were playing in the sand; they had partially filled a hole with dry sand and the little boy was baptizing the little girl's dolls, while she sang.
3. A little fellow of five years was very fond of attending church. Almost always, on his return, he would go out to the poultry yard, and mounting a stump or box would wave his arms around and tell the chickens to be "good chickens and mind their mammas."
4. Every time the half-hour bell rings for meals, Agnes, aged four years, will hurry to her mamma's dressing room and arrange her dress. Taking her hand glass in one hand and a

comb in the other she will gaze most intently in the glass with her little back to the dressing mirror and primp her hair. Also the same performance when she hears the words, "Papa is coming."

5. Little Bernice, aged four, and Gertrude, aged three and one-half were out riding their dolls. Gertrude stopped at one tree and Bernice at another. Bernice then went to call on Gertrude. "How do you do, Mrs. —?" "Not very well, my back has hurt me all day." "How is your baby?" "Baby's getting teeth, and he is *so* cross." "I am making jelly." "Oh my mamma made a big lot to-day. More than yours!" "She didn't!" "She did!" "Now you may say, 'I am making Freddie a new waist.'" "Shan't!"—my mamma makes better jelly'n yours!" "I am going home!" "I don't care. Let's play tag."

6. The other day Russel was sitting on the little wagon and Wade and Joe were *real horses*, hard to manage. Russel was calling, "Cider—cider." Presently he received a customer. He asked the horses to halt. The horses being fiery steeds began kicking and snorting and for a few minutes the scene was intensely alarming and dramatic. When all became quiet, Russel, using some very strong language, kicked and slapped the horses, still under the impression that he was a real big driver. One horse started to cry and ran home; the other cried and ran home; and lastly the driver cried and ran home. Ages, three years, two years and ten months and four and one-half years respectively.

7. There is one little boy who is always playing that he is a physician. He will have those with whom he is playing lie down and he will cover them over comfortably, knock at the imaginary door, sit by the bed, feel the pulse, shake his head, write a prescription; and with the promise, "Will call tomorrow," seat himself on the steps, tuck the duster around him, ride to the next patient, and so on. Age five.

GROUP II.

1. When my younger brother was about three years old, we lived near the outskirts of a small town and only a few blocks from an old cemetery. He enjoyed playing alone and would amuse himself for hours with imaginary people. "My people,"

he called them, and they lived up at the old cemetery, where he visited them often. He would hitch up imaginary horses and drive up there. He also brought some of his "people" home with him often. Most of his people were not children but grown people, and they all had names. One, I remember was old Aunt Schooler, one Big John and one Little John. Big John was very tall and by a little boosting could be entangled in the clouds or caught in the sky where the poor fellow would dangle until help came. We older children used purposely to get him into this predicament, when poor little Waldo would cry piteously until we actually went through the motions of taking him down. He was very sensitive about his people and a cross word to them almost broke his heart. He was also very fond of getting into an obscure corner and playing church with his imaginary people. He would call upon them to sing and pray and would preach odd little sermons. These same people retained the same names and characteristics for over a year.

2. Sister, aged four, will imagine she is a gypsy girl and will deck herself with all the gaudy apparel she can find. She generally ties an old red handkerchief around her neck, gay sashes around her waist and the more showy she appears the happier she is.

3. One day this sister saw a snake crawling along the grass. She became so frightened that she screamed and cried for about an hour afterwards, imagining that it was twined about her legs and feet. While she cried she kept looking at her feet and moving them and saying there was a snake there. For days after this incident whenever the word snake was mentioned, she looked at her feet and would say a snake crawled around them and bit her. She even talked about the snake in her sleep, and often in the night, she would scream out.

4. Bert, aged five, liked to imagine he was a frog. On nice days he would imitate the frog's movements on the playground and sometimes would not answer to his name. He liked to tell about them and thought it would be a fine thing if he could live in the water all summer.

5. Walter, when about five or six years of age, was always imagining himself to be running an engine. Sometimes it was a stationary engine but quite often a locomotive. He delighted in machinery. He would get all the chairs in the room in a row

and play train. Would have names for his toy engines, and make drawings of engines and also tear his toy ones to pieces to see their construction.

6. A little girl, four years old, plays that her doll is sick. She warms a shawl and puts it around her doll. In every way she is as gentle with her patient as a devoted mother could be. She pours medicine out of an imaginary bottle, waits on and talks with an imaginary doctor.

7. A small boy two years old, who lives where he can see a Kansas & Pacific train and turn-table, changes nearly everything he comes in contact with into a K. & P., train. He loves, more than all else, to transform *himself* into the train. He will puff and jerk, back up, whistle and go,—“Ding dong, ding dong” like a bell. He puts the engine on the turn-table, turns it around and couples it on the other end of the cars.

8. R., aged three, does not enjoy the process of getting ready for Kindergarten, though he dearly loves to go. His mother was telling him one morning while combing his hair, how horses were curried and he immediately conceived the idea of being her little colt. Instead of saying his hair must be combed, he had his mother say it was time to curry him. He would jump around, imitate the whinny of a horse, run away frequently and then have to be caught, brought back and sometimes tied to a chair with a rope until the process of currying was completed.

GROUP III.

1. I asked Burrel, one of my kindergarten pupils, to draw an apple on the board. He laughed and said, “The board isn’t thick enough.

2. A four year old boy was asked, one day, what soda water tasted like. And he answered “Tastes just like when your feet’s asleep.”

3. I was cleaning my lamp chimney and Leland said, “Why did you wash it?” “Because I wanted it to be clean and bright.” “Don’t you think it *gets thinner* when you wash it?” Age, 4.

4. George said, “Why do you put that plant on your book-case?” “Because it looks pretty there.” “*Why does it grow down?*” “Because God made it so it would grow down and out at the sides.” “Does it have flowers?” “No.” “Why don’t it?” “Some plants have flowers and some do not.” “Then it isn’t the kind of plants mamma has.”

5. Frank, aged four years was fond of going to a neighbor's to see the flowers. His mother refused to let him go one day and he said, "Mamma, if you were Frank and I were mamma and you wanted to go and see the flowers I would say 'yes.'"

6. A little girl of five, on seeing a black bear, exclaimed, "O, mamma, what makes him so dark complexioned?"

7. She was sitting by the open window one evening, it was very dark, and she asked her mamma if her hand would be black if she put it out the window.

8. One day a little four year old boy came from the barn, carrying an egg, and he asked his mamma if the egg would grow if he planted it.

9. He had been told that the angels had wings and one day he asked if the angels were hatched out of eggs like chickens.

GROUP IV.

1. Wade, five years old, said, "When I die I am going to lean way down from heaven, hold one end of a long rope and mamma is going up stairs and take hold of the other end and I am going to pull her way up."

2. Two little boys nearly six years old had been taught at Sunday School that God sees all they do. One day they were playing and were going to do something they thought was not quite right and they did not want God to see them do it, so one of them prayed, "God turn around and don't look till we get through,"

3. A little boy of five had been told that God made every one. One day he passed some children who were ragged and dirty and decidedly unpleasant to look at. He said, "Mamma did God make *them*?" On being told yes, he said, "My! I should'a thought it would'a made him awful tired!"

4. A friend of the family died and Jesse was very curious about it, but his mamma thought best not to tell him too much, so she told him Dick had gone to Heaven to be an angel. Jesse watched the procession as it passed his home; the next day his mamma found him lying in a box with his eyes closed. When she asked him what he was doing, he said, "I's going to Heaven to see Dick."

5. Wade was quite sick and he thought he was going to die so he asked his mother to write a letter to God telling Him he

was a good boy. His mother did not do this and Wade was grieved. The next morning we were almost down to the kindergarten and I told Wade I was so glad he was coming back and that we had missed him. Then he said, "Miss S. will you please write and tell God that I tried to be a good boy, and tell him not to remember when I was bad, so that the next time I am sick I can send God my letter and when I die I can go to heaven." Age, five years.

6. I have a little cousin about three years of age, who said one night when looking at the moon, "That is a big window and some day God is going to come through it and take me to Heaven."

7. A child between four and five used to tell me that the sun is a big ball which God takes in the house every evening and keeps it before the fireplace until morning when he puts it out again. He seemed to think that God has a string to it by means of which he keeps it in balance. This same child said about the snow, that God keeps a 'lot' of ice up in heaven and the angels cut it up fine and sprinkle it over the earth.

8. A little girl whose home was near a large hill, where there were many rocks, thought the thunder was caused by great rocks rolling down on the other side of the sky. She thought of the sky as a great bowl turned over and she filled out the space on the other side with rocks.

I have hoped thus far in this article, to have exposed and to have exemplified by illustration the nature of one kind of observation that every teacher can make. I cannot here consider the *significance* of the illustrations. The method of interpretation of such is reserved for a future article. I shall close this one by asking a number of questions that will prepare for the discussion that is to follow.

The illustration in Group I., shows somewhat of the nature of imitation in children; those in Group II., show the play of the childish imagination; those in Group III., illustrate the child's efforts at reasoning—at getting at the *rationale* of things; those in Group IV., his ideas of God, Heaven, etc. Look at Group I. What characteristics of imitation as a mental experience are exposed? Pick out all of the aspects of the child's environmental life that are represented; notice what aspects of the family, of the church, of society, of industrial and professional life he has

represented. What is the economy of such in the life of the child? What is the pedagogical significance of Imitation as hinted by these illustrations?

Examine Groups II, III, IV. Work out their pedagogical significance. (TO BE CONTINUED.)

Valparaiso, Ind.

LEND A HAND.

(This department is conducted by Mrs. E. E. Olcott.)

*"Look up and not down,
Look forward and not back,
Look out and not in;
Lend a hand."*

GEORGE WASHINGTON, HERO.

Happy are those who have high ideals! The greatest compliment we can pay a person is to wish to be like him. Therefore, hero-worship, so the heroes be worthy, is ennobling.

There are those who say, "Do not set great men upon pedestals for pupils to worship. Tell them the truth! Tell them frankly that those great men were only weak, erring human beings like people now-a-days. When pupils grow older they find out their heroes were not perfect and feel they were deceived, were cheated into believing that Washington, for instance was faultless."

Do those who argue thus remember the implicit God-given faith of a little child in his parents? To the wee ones father and mother are perfect!

A little boy said proudly, "I'm going to be like my papa when I'm a man." Those who heard him knew that father was a swindler by trade! But would it not have been cruel to tell the child the truth, to say, "Your father is not a good man. Nobody would trust him! You ought to be ashamed of him when you grow up." Would it increase the boy's chances of being upright?

A little girl listened to a story in which a minor incident brought out a mother's injustice to her child. In a tone of amazement and doubt she asked: "Was her *mamma* naughty?" The thought that *mammas* were ever unjust was new and incredible.

Would there have been a grain of wisdom in replying with rough truthfulness, "Yes, indeed; some mammas beat their children, teach them to steal and do other wicked things. Every body in the whole world is naughty. This is a wicked world!"

Would not the wound leave a heart scar forever? Bide a wee, and the knowledge will come gradually. Only a little older grown and the tendrils of the child-faith reach out and cling around the great names of the nation, Washington, Franklin, Webster, Lincoln and hosts of others.

Some scoff at telling the story of little George Washington's hatchet. But who could count the young hearts that have been thrilled to nobler impulses by that story? If it is fiction, it is still "good enough to be true."

It brings convincingly home to the child-heart the fact that Washington was truthful and brave—yes, truthful and brave even when he was a *little boy*!

"The boy is father of the man," is meaningless to a little child. But tell him of George Washington's hatchet, and see if skillful questions will not lead him to announce, "George Washington was a good, brave boy *and so* he grew to be a good, brave man!" And that fully realized means a great deal. Every child has his *metaphorical* cherry tree. Some children tell the truth about using the hatchet and some do not. Those whose conception of Washington is filled with the spirit of the hatchet story can more fully appreciate his nobility in indignantly refusing to consider the proposal to crown him king; and his declining to be nominated for a third term.

The boy is helped to tell the truth because Washington was truthful. The young man is strengthened to refuse a bribe because Washington refused a crown.

Somebody is said to have exhumed from somewhere some sort of evidence that Washington sometimes swore! Well—who is benefited by learning that?

"But what if it's the truth," says the critic, "should we not always seek to know the truth?" Dear critic, ponder well upon "the truth should not be spoken at all times," and remember that early youth is one of the "times" when certain truths may well be shrouded in golden silence.

In one of his poems, Joaquin Miller writes of souls, and says something like this:

"And there be hunchback souls who looking down
Discover stains upon a great soul's gown,
—Stains won perhaps in some great fight—
And sneering say to the world, 'It is not white!'"

Let the critic consider well ere, to the children, the nations hope, he "points out stains upon a great soul's gown."

I heard a gentleman ask a bright boy of eleven, "What do you know about Benjamin Franklin?" He used to get drunk!" was the prompt reply in a self satisfied tone.

"Indeed! Are you sure?" questioned the gentleman.

"No-o," admitted the boy after a moment's thought, "I guess it wasn't Franklin. It was Daniel Webster. He was most a drunkard!"

I was startled, shocked. Daniel Webster a drunkard! That was the boy's conception of the distinguished statesman. Webster's wonderful ability, his priceless service to the nation were, to this boy, blotted out by the knowledge of his intemperance.

Daniel Webster, drunkard!! Yet this boy will wield the ballot and how much influence no one knows when this generation has passed away! Let us hope that his teacher was not the hunchback soul who "pointed out the stain" and robbed the boy of an ideal.

Place these pictures side by side:

I.

Washington always told the truth, so will I.
Webster served his country, so will I.
Washington, the Father of his country.
Webster, statesman.

II.

Washington swore, so do I.
Webster drank, so will I.
All great men had bad habits, why shouldn't I.
Washington, "Swearer."
Webster, drunkard.

Consider them well and judge if it is safe to "point out stains." Why teach the children to say with their lips,

"Lives of great men all remind us,
We can make our lives sublime,
And departing, leave behind us
Footprints on the sands of time."

and then point out where the footprints went astray?

To veterans in life's service it is bitter enough to meet—

“ Disenchantment ! Disillusion !
Must each noble aspiration
Come at last to this conclusion,
Jarring discord, wild confusion,
Lassitude, renunciation ! ”

Let us not even hint such sad thoughts to the children, but rather exert ourselves to weave into the fibres of their being the belief,

“ Whene'er a noble need is wrought,
Whene'er is spoken a noble thought,
Our hearts in glad surprise
To higher levels rise.”

So upon Washington's birthday, and other days, let us tell stories of the good and great men. Tell them so earnestly that the children will be filled with admiration and long to be heroic.

Hang the hatchet under the stars and stripes in the first year grade. In the higher grades tell reverently how at Valley Forge, Washington was discovered in a lonely place praying fervently for blessings upon his suffering soldiers. It is written, “ Honor thy father and thy mother that thy days may be long in the land which the Lord, thy God, hath given thee.” The hope of the Republic lies in the integrity, the uprightness of its youth. Therefore, let us reverently teach, also honor, emulate heroes, past and present, that the *days of the land* which the Lord, thy God, hath given thee, may be long.

GEMS FROM LONGFELLOW.

I become aware of the great importance in a nation's history, of the individual fame of scholars and literary men.”

“ Oh ! tho oft depressed and lonely,
All my fears are laid aside,
If I but remember only,
Such as these have lived and died.”

“ Honor to those whose words or deeds,
Thus help us in our daily needs,
And by their overflow
Raise us from what is low.”

“ How beautiful is youth ! how beautiful it gleams
With its illusions, aspirations, dreams !
Book of Beginnings, Story without End,
Each maid a heroine, each man a friend.

* * * * *

All possibilities are in its hands,
 No danger daunts it, and no foe withstands.
 In its sublime audacity of faith,
 'Be thou removed,' it to the mountain saith,
 And with ambitious feet, secure and proud,
 Ascends the ladder leaning on the cloud."

"He did not so much denounce vice as inculcate virtue * * he did not lacerate the hearts of his hearers with doubt and disbelief, but consoled and comforted and healed them with faith."

DESK WORK. •

A WORD GAME.

There is a pleasant little game in which a person is described by adjectives whose initial letters spell his name; thus, John is *just, old, honest, and nimble*. At first merely a single word may be taken, as May is merry, Katie is kind, Guy is graceful, Edward is earnest. Then initials may be used, as Will Martin is winning and manly, or he is willful and mean for uncomplimentary adjectives should be used freely and good naturedly.

The pupils will enjoy making lists of adjectives to be used in the game. They will search for them in readers, and in the dictionary, and will often jot down those noticed in conversation. They gather the words for the fun of describing their classmates and others, but they are learning them more thoroughly than if they collected them merely to have a list of adjectives. Used occasionally, the game is an excellent device for increasing the vocabulary, especially in advanced grades. On February 22, Washington is a good word to assign. A little girl wrote Washington is *wise, amiable, sincere, handsome, independent, noble, good, tall, open-hearted and nice*.

RECOGNIZING SYLLABLES.

In days gone by when spelling was king, much stress was laid upon separating words into syllables. Then, a pupil spelling independence would have said: "i, n, in; d, e, de, inde; p, e, n, d, pend, independ; e, n, c, e, ence, independence." Now syllables are, in many schools, neglected, and pupils may be heard spelling: "i, n, d, e, p,—e, n,—d, e, n,—c, e," plainly thinking only of the order of the letters, losing the help that syllables afford.

In writing, when words need to be divided at the end of a line, the pupil has nothing to guide him. If the word playful needs to be divided, he sees no reason why play-ful should not be correct. Some teachers meet this by forbidding the separation of words at the end of a line, but this makes a very uneven margin at the right, besides words are divided in printed matter at the ends of lines.

In reading, we have learned the importance of recognizing familiar parts in new words. Thus, in always, the pupil is to see "ways" and prefix "al." But the child who spells "alw-ays" does not readily see the syllable "ways."

Would it not be wise to supplement word-building in reading by syllable practice in spelling? For desk work, assign lists of words in which syllables are to be indicated. In oral spelling insist on the proper division of the word. In written spelling *occasionally* dictate by *syllables*, as play, ful; play, ing; play, mate.

The direction was: Write ten words indicating the syllables. This is one pupil's corrected list:

| | | |
|-------------|----------------|---------------|
| Fan, ny | tog, eth, er × | con, tent, ed |
| mar, bles | song, ster | mor, ning × |
| hap, pi, er | shi, ning × | to, mor, row |
| | | ev, er, y |

PRIMARY DEPARTMENT.

SCHOOL ROOM NOTES FOR FEBRUARY.

MISS JOSIE BUNDY.

"This lesson learnt I from the swaying tree
Whose shadow fell upon a neighboring wall.
Our influence, our shadow self may fall
When we can never be."

I came across these lines in an old paper the other day, and jotted them down in my mental scrap-book for future reference. They now keep persistently repeating themselves as if asking for utterance and I know of none to whom they can bring more consolation and inspiration than the hundreds of teachers who are day by day given the opportunity of coming in touch with the lives of those who are to be the men and women of the future.

What possibilities grow around your daily existence in the school-room, when you reflect on your never-ending influence, and the unknown regions into which your shadow self may fall.

February is a month that usually brings its share of bad weather, and gloomy days. In many districts, too, the school term is drawing near its close, and a relaxation of mental energy sometimes sets in as the children feel the pressure of the days diminish. What shall we do to meet the emergency?

First of all we want to banish February weather from the school-room. Let the winds sweep through the trees bringing consternation to the tiny, brown buds whose shining tips are already pointing toward the gray dawn of the year!

Let them wrestle with those last few straggling leaves of the summer's story, tearing them off in triumph and dashing them against the window panes to bid farewell to their little friends within.

Let them rave as they will but do not let them enter the precincts of the little school room. We are responsible for the weather inside, and when we cross the threshold we want to feel that we have reached neutral ground where the warring of the elements has ceased. Let us look upon February as a friend who prophesies of better days to come.

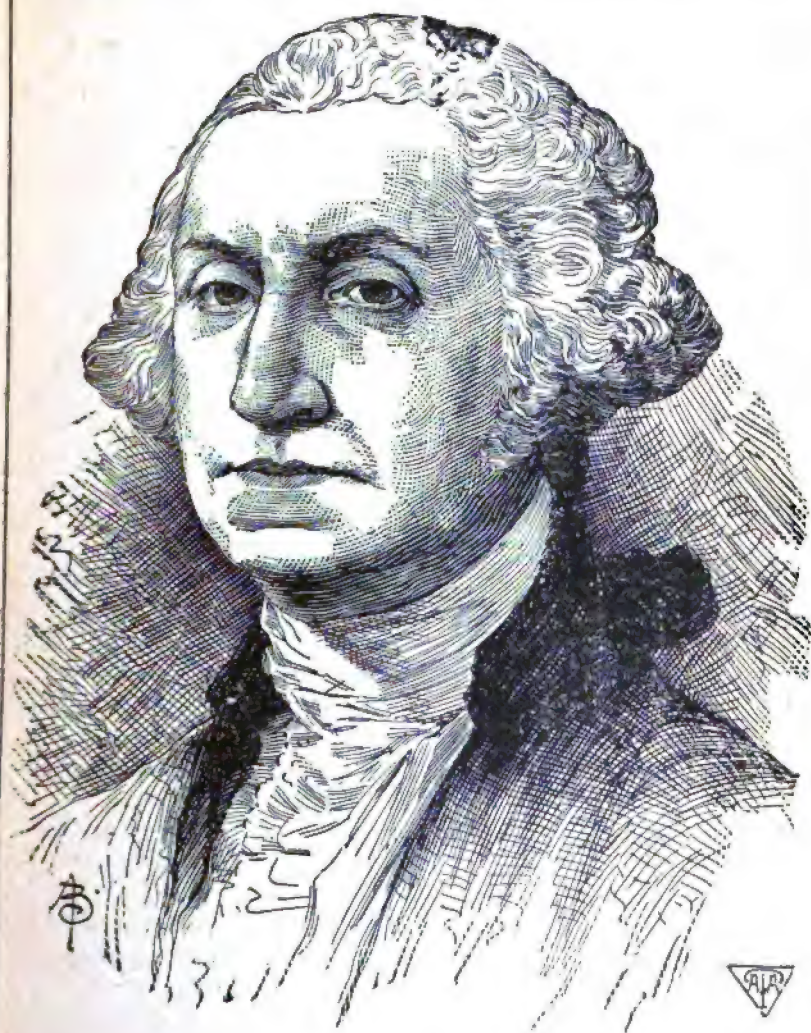
Ah, February, thanks for the brief span of days
O'er which we journey toward Spring's pleasant ways.
What tho' your skies are gray, and cold winds blow!
The blue's beyond! Flowers sleep beneath the snow!

You remember Mr. Page's talk on "Waking Up Mind," and how he used the ear of corn to illustrate the process.

Let us make February a patriotic month with Washington's Birthday as the special material which it brings for "waking up mind."

We will want around us all the patriotic symbols we can obtain, and of course the flag will predominate. A tiny flag shall mark the desk of the pupil who was neither tardy nor absent last week. The division that can best control itself, or that has improved the most in any line of work can be marked with a larger flag placed in the ink-well of its front desk.

Washington's picture should by all means have a prominent



G. Washington

place. Flags can be crossed above it, or red, white and blue bunting draped around it, the folds being caught up and held in place by small evergreen wreaths. If possible we will let the pictures of Lincoln and Longfellow share the glory of the month.

The black board can be made to contribute largely towards the decorations. The teacher who possesses some artistic skill can excute her own designs, and for the one who does not there are a number of stencils with patriotic designs and with the friendly aid of these, the black board can be made to grow into a thing of beauty. The American Flag, the U. S. Coat of Arms, the American Eagle, Washington on horseback, and a fine portrait of Washington can be obtained from the Ed. Pub. Co., Chicago. Around this last named, a wreath of laurel might be sketched in white and green, and the motto "First in War, First in Peace, and First in the Hearts of his Countrymen," could be printed underneath in fancy lettering or small capitals.

Of course we intend to let our boys and girls help plan and make these decorations, and with what pride they will look round upon them as the result of *our* united labors.

Now upon the part of the board that we have reserved for our own use, let us do our best work if we want to see neat slates and papers. Do we always realize that the black board is the silent teacher giving to the children their first lessons in form and neatness !

But it "profiteth us nothing" if we are merely surrounding ourselves with the emblems of our country and giving to the children no lessons in patriotism that will make their hearts glow with pride to think they are Americans. Let us spend part of our morning hour in rehearsing those early struggles of our country for freedom, and the heroism of the first American who helped "make and preserve us a nation." We can go back to the old colonial days and see Washington, the athletic school boy, and the young surveyor, preparing himself for a position that was already shaping itself for him. Then following this preparatory stage, Miss Pratt's American History Stories can be used to good advantage. The stories of the French and Indian War and of the Revolution can be read, and if the teacher as she reads feels the "oppressor's wrongs," and the struggle of a brave people for liberty and right, her children will share the same feelings.

After they hear the story of Washington at Trenton, or of the army at Valley Forge, with what enthusiasm will they sing or recite—

A hundred years and more have fled,
Since our forefathers fought and bled
For liberty and right.
They gained our country's liberty,
Causing it ever more to be
A land all bright and free—
All bright and free.

With shoeless feet o'er frozen ground
The Continental troops were found
All eager for the fray.
They fought the red coats hand to hand,
Drove them away from this beauteous land,
Gaining victory and peace—
Victory and peace.

And now with all our friends so dear,
Let us all unite in song and cheer
For Continentals so brave.
Through storm and strife their cause they won,
With love and praise to Washington
Whose fame to-day we sing—
To-day we sing.

We will find that the spark struck out by Paul Revere's steed that April night so long ago can kindle a flame of patriotism in the hearts of American boys and girls to-day. And nothing will do more to keep this flame alive than to teach them the old songs that after all never do grow old but will continue to be sung as long as the flag floats over the "land of the free, and the home of the brave."

Some of the stories we have read to the children can be reproduced as language exercises, and let it be understood that the best story each one writes is to be kept. Correct these best stories and have them copied on sheets of paper of uniform size. Enclose the work of each class in a separate cover of manilla paper or cardboard bearing the inscription, "Our Best Work"; tie with tiny knots of red, white and blue ribbon and keep them as souvenirs of the month's work. Each class will take a special pride in showing visitors its own booklet.

And for visitors on the 22nd we want all the patrons in our respective districts. Let us make this a "Patron's Day" and

send out invitations asking them to come and help celebrate Washington's Birthday. These invitations may be written on paper hatchets, or shields, each bearing the national colors in a small bow of narrow ribbons. Let this sentence be conspicuous on each one: "It is fitting that the public schools of America unite year by year to do honor to this First American." The invitation can be worded similar to the following: The pupils of District No. — will be glad to have you present at their school house on Wednesday Afternoon, Feb. 22, 1898, to help them celebrate Washington's Birthday.

Send these invitations out a few days before the 22nd so that each person interested in the school will receive one, and see what a wave of enthusiasm will spread over the whole neighborhood.

The children will not soon forget this Washington's Birthday. It will be a red letter day in their school calendar, and next year we will have them inquiring if they can celebrate the day as they did last year.

GEORGE WASHINGTON AS A BOY.

In the State Department at Washington is a large room almost filled with things relating to the Father of his Country; among these are two hundred bound volumes of his letters and a large box of his private writings, some of which were written when he was a boy. These manuscripts are old and yellow, and the ink is faded but they show that the writer was a careful, pains-taking boy. There are specimens of his early ciphering, surveying, and diarizing, and many of those wise sentences and homely verses copied by his own boyish hand. The drawings are neatly done and everything is orderly and systematic. He seemed to have done *his* best work without knowing that these papers were to be kept with such good care so many years.

He was a thoughtful, intelligent boy eagerly searching after such wisdom as a boy could grasp and understand. He thought about life and duty. He wanted to know for what a boy was here upon earth, what it became him to do, and by what course of conduct he could avoid evil, attain good, and do good to others.

The "Rules of Behavior in Company and Conversation," which he drew up at the age of thirteen years, would be enough to show how much he thought of such things. They were not all his own composition, but he copied and adopted them as rules for *him* to live by. And how excellent most of them are!

"Show not yourself glad at the misfortune of another though he be your enemy."

"Labor to keep alive in your breast that little spark of celestial fire called Conscience."

"Let your recreations be manly not sinful."

At the same time he was a boy finely developed physically, and as fond of athletic sport as any boy that ever kicked a ball at Rugby, or caught a hot liner on Boston Common. He was a bold rider, an excellent swimmer, a good shot, a splendid thrower and the best runner in his county. As an old neighbor of his mother used to say, "Langhorne Dade of Westmoreland was a clean-made tight young fellow, and a mighty swift runner, too, but he was no match for George."

North Vernon.

ON WASHINGTON'S BIRTHDAY.

MARIETTA HOOVER DUNN.

Let nations laud their conquerors bold,
And sing of monarch's glories;
Let legends wild and myths oft told
Delight us with their stories
Of gods, who from Olympic height,
Vouchsaf'd to notice mortals:
But we a hero claim whose light,
More strong defies death's portals,
As years roll into centuries.

No king was he—a crown he scorned—
And mid loud acclamations,
He stood calm-browed and unadorned—
The cynosure of nations!
He gazed with keen prophetic sight,—
Adown the future's pages,
And counsel gave to steer aright,
Through many coming ages,
The nation he had given life.

For his the gift through which we may
"My Country" sing. Aspiring
To honor him in ode or lay,
No royal name desiring,
We call him simply "father"—"man"—
Nor king, nor prince, but solely
"The Father of his Country." Than
Which name, none can more fully
Declare the love the nation bears.

Scarce skilled in arts of war, and new
 In state-craft ; dangers heaping
 On every side ;—our chieftain true,
 Mid all ne'er swerved. Oft reaping
 Ingratitude and calumny,
 And even envy's venom—
 So great his soul, that jealousy
 Of fame therein found lodgement none,
 He only sought his country's good.

No peer had he : with God alone,
 Communion was for spirit
 So truly great. In him no tone
 Vibrated meanly. Fear hit
 Afar the mark when aimed at him.
 Great Washington ! How surely
 Our pattern hero, thou. No whim
 That makes thee such but purely
 Thy worth and what thou wast.

Thy monument—a nation great ;
 Thy epitaph—a history ;
 Thy name revered in every State,
 On this thy anniversary.
 Majestic patriot and grand,
 Thy memory is holy
 We blush for aught within the land
 Of strife that's mean and lowly—
 That blots the pages of thy fame !

Matthews, Ind

ST. VALENTINE'S DAY.

LILIAN J. QUICK.

Valentine's Day will soon be here. Shall we observe it? Does the extra work pay? It certainly makes children happy and let



me ask, does that not always pay? The old adage "a good child is ever happy" should be changed to read, "a happy child is ever good."

How shall the children look forward to the day? Shall it be with the predominating thought, "What shall I *receive*, or what shall I *give*?"

Can teachers afford to miss a

single opportunity to inculcate in the minds of the children lessons of love and unselfishness? By filling their minds full of good thoughts the evil is crowded out.

Give the restless little hands something to do and by making gifts for others lift the children to a higher plane of thinking and acting.

For a week or more before Valentine's Day, the teacher with her pupils can begin planning valentines to be made by the children to be given to school mates or be taken home to mamma, papa, or some friend.

Drawing with colored pencils, painting with water colors, and paper folding can be utilized in making valentines. I give some designs for sewing cards. The teacher can cut these from card board any shape desired, and stamp the design with the hectograph. The children can outline the design with colored sewing cotton, or better still let each pupil bring a few pennies to purchase embroidery silk. It is of more value to the child if he helps buy the material. These cards should be lined with tissue paper and tied with ribbon.



Such work as this aids the children in gaining patience, steadfastness of purpose, carefulness, reliability and thus moral development is added to mental and manual development.

Columbus, Ind.

Mr. Lincoln's first political speech, when he was a candidate for the Illinois Legislature, was as follows :

"GENTLEMEN, FELLOW CITIZENS: I presume you know who I am. I am humble Abraham Lincoln. I have been solicited by many friends to become a candidate for the legislature. My politics can be briefly stated. I am in favor of a national bank. I am in favor of the internal improvement system, and a high protective tariff. These are my sentiments and political principles. If elected, I shall be thankful. If not, it will be all the same."

PROGRAM FOR WASHINGTON'S BIRTHDAY.



FEBRUARY 22, 1732-1898.

[“The portrait of Washington should grace the walls of every school room and his face should be ‘familiar as household words’ to every child. On each recurring anniversary of his birth our children should be taught to gather the folds of their country’s flag, and there, with his name on their lips, and his memory in their hearts, renew their vows to know hereafter and through their lives, but ‘One Country, One Language, One Flag.’”—*Henry Sabin.*]

1. SONG.....America

My country 'tis of thee
Sweet land of liberty,
Of thee I sing;
Land where my fathers died!
Land of the pilgrim's pride,
From every mountain side
Let freedom ring.

Our Father's God to thee
Author of liberty;
To thee we sing;
Long may our land be bright
With Freedom's holy light;
Protect us with thy might,
Great God, our King!

2. RECITATION (Boy).....Which General?

Sometimes mamma calls me “general;”

I wish I knew which one,
But I always try to tell the truth,
So I *hope* it's Washington.

But when I tell my papa that,
He laughs loud as he can,
And says if she calls me “general,”
She must mean Sheridan;

Because whenever she wants me,
And I am out at play,
I nearly always seem to be
'Bout “twenty miles away.”

—*Kate W. Hamilton in Youth's Companion.*

3. RECITATION : (Girl)

If only I had a nice little hatchet
Just cut from the sandal-wood,
I'd deck it with gold and a ribbon to match it
Most beautiful, bright and good.

There right in the corner, on my own little bracket,
Thus neatly adorned it would stand ;
Reminding us all of the boy with the hatchet
Who grew up to rescue our land.

WASHINGTON GEOGRAPHY :

4.
 1. The capital of the United States was named for George Washington.
 2. Twenty-six states have counties named for Washington.
 3. There are 270 cities, towns, or post-offices in the United States having the name of Washington.
 4. Kansas has thirteen places named Washington.
 5. Missouri has twenty-two.
5.
 1. Pennsylvania has twenty-four.
 2. Iowa has forty.
 3. Ohio has forty-three.
 4. Indiana has forty-four.
 5. There is only one place in the world, outside the United States, named Washington—that is a small place in England.
6.
 1. The Southern states that have counties named for Washington are : Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Tennessee, Texas and Virginia.
 2. The Western states having counties named for him are : Indiana, Illinois, Iowa, Kansas, Minnesota, Missouri, Nebraska, Ohio, Oregon, Utah, Wisconsin.
 3. The Northeastern states having counties named for Washington are : Maine, New York, Pennsylvania, Rhode Island and Vermont.
 4. Massachusetts has no county, town, or post-office named for Washington.
 5. The most beautiful city in the United States, one of the most beautiful in the world, is Washington, the capital of the United States.

[It will add to the attractiveness of the exercise to have upon the board a large map of the United States, and when any child refers to a state, let him step to the board and point to that about which he is speaking.]

7. READING Washington before the Philadelphia Congress

The carriage of the president was of a light cream color, painted on the panels with groups representing the four seasons. It was drawn by white horses.

As Washington alighted and passed up the steps he was preceded by two men bearing long white wands, with which they kept back the crowd.

Washington was dressed in a suit of rich black velvet, with diamond knee buckles. He wore black silk stockings and had silver buckles on his shoes. His shirt had a ruffled front and ruffles around the sleeves. He carried a light dress sword. His powdered hair was secured at the back of the head in a silk bag ornamented with a large rosette of black ribbon. He held his cocked hat, which had a large black cockade on one side of it, in his hand, as he advanced toward his chair, and, when seated, laid it on the table.

At length, thrusting his hand within the side of his coat, he drew forth a roll of manuscript, which he opened and held in his hand, then rising, read in rich, full voice, his opening address to Congress.

8. RECITATION Johnnie's Recitation

1. "He went to the war with a General's hat
And feathers and sword—I should like to do that.
He fought and he fought till the enemy ran—
That's how I shall do when I am a man.
2. "The people all shouted the hero to see,—
I hope they'll hurrah when they come to see me.
They made him a President, too. If I can,
I'm going to be President, when I'm a man.
3. "But perhaps, I had better be thinking of how
I may be a little like Washington now ;
For, they say that his being a hero began
A very long time before he was a man.
4. "He learned very early to tell what was true,
An excellent thing for a hero to do.
For every small boy it would be a good plan
To learn the same lesson before he's a man.
5. "How many more things, it would tire me to tell,
We all must be learning, and learning them well,
Before we can fancy, in pride and in joy,
We are like the great Hero when he was a boy."

9. Teacher :—Boys and girls will you please tell me the sentiments you have found written by good men and women as tributes to the character of Washington? My own is this :

"He embodied the spirit of all America. Others were New Englanders, or Southerners ; he wore the mark of no section. Like no other man of his day he was an *American*—the first American. And it is the conspicuous personal qualities which he impressed upon his country,—courage, justice, love of liberty and enlightenment,—that our nation has embodied in its life and that we call the true Americanism of to-day."

10. The value of Washington to his country transcends that of any other man to any land.—*Geo. W. Curtis.*

11. My mother tells me that every one
Can not become a Washington ;
But even a little boy can be
As great a hero for truth as he. —*Susie M. Best.*

12. An honest name is worth far more
Than gold or land can ever bring.
A boy who always *speaks* the truth
Will *live* the truth in everything.
—*Laura F. Armitage.*

13. No man ever stood for so much to his country and to mankind as George Washington. Blot out from the page of history the names of all the great actors of his time in the drama of nations and preserve the name of Washington and the century would be renowned.—*Chauncy M. Depew.*

14. Washington was one forefather,
Who were the other three ?
Didn't any of them have birthdays
I hope they had, for you see?
We never could have too many good times
As we do on Washington day.
Don't the history tell us mamma
The other three birthdays?

15. "It is fitting that the public schools of America unite year by year to do honor to the First American."

16. "On his birthday we joyously recognize that these public schools are the arteries through which flows the very life blood of the Republic. If our nation is to fulfil her divine mission, our citizens must guard well this priceless birthright, the inheritance of every child over whom floats the American Flag.

17. "So this day, as we wreath our Washington with evergreen and laurel, we understand our duty. To the millions of children like us in the public schools, the command of the coming years belongs. As we face the future we promise that Washington's unselfish patriotism shall be our aim and that his loyalty to duty shall be our guide."—*Francis Bellamy.*

18. SONG..... Columbia's the Gem of the Ocean
[For additional material see February JOURNALS of preceding years.]

College Current is the name of a new weekly paper started at the Northern Indiana Normal School, at Valparaiso. All the students will wish to take it so as to get college news fresh. Jesse Dorn is editor-in-chief. Price \$1.25. Club rate for this JOURNAL and the *Current*, \$1.65.

THE *Daily Mail*, of Bedford, sustains an educational column which is edited by County Superintendent W. E. Stipp, and all the township principals are associate editors. Such a column ought to be of much value to the schools. It is the best possible means of keeping the people in close touch with the schools.

EDITORIAL.

THE INDIANAPOLIS CURFEW LAW.

"An ordinance prohibiting persons under fifteen years of age on the streets, alleys or public places in the City of Indianapolis, Indiana, at night after the hour of nine o'clock P. M., from March 1st to August 31st, inclusive, of each year, and from September 1st to the last day of February, inclusive of each year, after the hour of eight P. M., and prescribing penalties for the violation thereof.

"SECTION 1. Be it ordained by the Common Council of the City of Indianapolis, Indiana, That it is hereby made unlawful for any person under fifteen years of age to be or remain in or upon any of the streets, alleys or public places in the City of Indianapolis, at night after the hour of nine o'clock P. M., from March 1st to August 31st, inclusive, of each year, and from September 1st to the last day of February, inclusive, of each year, after the hour of eight o'clock P. M., unless such person is accompanied by a parent, guardian or other person having the legal custody of such minor person, or is in performance of an errand or duty directed by such parent, guardian or other person having the care and custody of such minor person, or whose employment makes it necessary to be upon said streets, alleys or public places during the night time after said specified hours. Any person violating the provisions of this section shall, on conviction, be fined in any sum not to exceed five dollars for each offense, and to stand committed until such fine and costs are paid.

"SEC. 2. It is hereby made unlawful for any person, guardian or other person having the legal care and custody of any person under fifteen years of age, to allow or permit any such child, ward or other person under such age, while in his legal custody, to go or be in or upon any of the streets, alleys or public places in said city within the time prohibited in Section 1 of this ordinance, unless there exists a reasonable necessity therefor. Any person violating the provisions of this section shall, on conviction, be fined in any sum not less than one dollar nor more than ten dollars for each offense, and stand committed until such fine and costs are paid.

"SEC. 3. Each member of the police force, while on duty, is hereby authorized to arrest, without warrant, any person willfully violating the provisions of Section 1 of this ordinance, and retain such person for a reasonable time in which complaint can be made and a warrant issued and served. Be it further ordained, That no child or minor person arrested under the provisions of this ordinance shall be placed in confinement until they have first been taken home to ascertain the parent's wishes, and the parents shall have refused to be held responsible for the observance of the provisions of this ordinance by said minor person.

"SEC. 4. It shall be the duty of the Police Judge, upon the arrest of any child or minor person where the parents or guardians have refused to become responsible for said minor person for violation of the provisions of Section 1 of this ordinance, to inquire into the facts of said arrest and the condition and circumstances of such child or minor person, and if it shall appear that

such child or minor person, for want of proper parental care, is growing up in medicancy or vagrancy, or is incorrigible, cause the proper proceedings to be had and taken as authorized and provided by law in such cases.

"SEC. 5. This ordinance shall take effect and be in force from and after its passage, approval and publication according to law."

Muncie and Greentown have also each recently passed a curfew law. Let the good work proceed.

WABASH COLLEGE.

For many years Wabash has been one of the few colleges of the west that did not admit women. And for many years some of its friends have worked faithfully to have them admitted. The authorities have always taken pride in the high order of the work done in the college, but have steadily opposed co-education.

At last a change has been made not to co-education but to "co-ordinate education."

From a circular recently sent out we copy the following which sets out the plan in full:

CO-ORDINATE COLLEGE FOR WOMEN.

"The board of trustees at its late meeting appointed a committee of three, with the president of the college as chairman, to represent it in co-operating with friends of the college in making practicable the establishment of co-ordinate education at Crawfordsville. It is hoped to open a Women's College, co-ordinate with Wabash in September, 1899. The committee has already submitted a preliminary statement outlining the probable course of procedure. It is purposed to establish the women's college as a separate corporation and under a separate charter. While the trustees of Wabash will probably largely appear upon the new board, others interested in woman's education on the co-ordinate plan will be invited to become incorporators. Several religious denominations will doubtless be represented and several women will be included. A separate faculty from that of Wabash College will be formed. The professors of Wabash will doubtless be largely employed, but in addition there will be several women professors. A woman of high culture, broad sympathies and practical judgment will have charge of the home life of the students in the building erected for their accommodation. The course of study will be of as high a standard as that of Wabash, but will be especially adapted to the needs of women as these are seen in the light of the best modern educational theory and practice. Yandes library of Wabash college, the Hovey museum and the amply equipped laboratories of the physical and biological sciences in the Hovey museum and Peck Scientific Hall can be placed at the use of the women's college. Especial facilities will be offered for the training of women teachers. In a word, it is proposed to plan broadly and wisely for the highest culture of the young women of Indiana and surrounding states under the best possible auspices."

President Burroughs assures the writer that the instruction provided for the women, while not *identical* will be in every way *equal* to that given the

men. Wabash proposes no quarrel with people that believe in co-education. Such can easily find colleges of that class. It proposes to accommodate that large class of people who do not believe in co-education but do believe in co-ordinate education. It is the purpose to make this equal to the best women's college in the country.

THE JOURNAL believes in co-education and has little respect for most of the arguments used against it, but it believes also in co-ordinate education, and endorses heartily the move made by Wabash. May its largest hopes be realized.

STATE SUPERINTENDENT GEETING'S REPORT.

State Superintendent Geeting made his distribution of school revenues January 1, and was able to do a *little* better than he did last year. Last year the apportionment per capita was \$1.25 while this year it was \$1.28. The report shows for each county the number of children enumerated, the amount of taxes paid and the amount received.

As counties pay according to their wealth, and receive according to the number of children, some counties of course, pay in a great deal more money than they get out and *vice versa*. For example Marion county pays in \$69,383, and the amount received was \$56,471, and Clay county pays in \$6,563 and draws out \$15,052. This is correct in theory and in principle, and the richer counties ought not to complain.

Total number of children 749,902; total state school tax, \$707,812.41; total apportionment, \$986,220.38; total amount apportioned, \$960,033.62.

The Superintendent has also made his annual report to the Governor, as the law requires. According to this report, the present enumeration of children of school age is 749,902, of which number 388,182 are males and 361,720 are females. Of the males 380,559 are white and 7,623 colored. Of the females 354,178 are white and 7,542 colored. The enrollment of pupils in the schools during the year 1898 was: Males, 281,850; females, 269,223; total enrollment, 551,073. The average daily attendance was 402,747.

The number of teachers employed in 1897 was 15,052, of whom 7,115 were males and 7,937 females. The number of school houses in the State is 10,063, an increase of 753 over the year previous. There are of stone buildings 89; brick buildings, 4,730; frame buildings, 5,226, and log houses, 8.

The permanent school fund of the State which "may be increased but cannot be diminished," now amounts to \$10,222,792, it having been increased in the last year by \$41,722.

School revenues for 1897 were expended as follows:

| | |
|---|----------------|
| Tuition revenue distributed January, 1897 | \$2,030,468 14 |
| Tuition revenue distributed July, 1897 | 2,522,848 48 |
| Special school revenue distributed 1897..... | 2,411,351 23 |

Total revenue for 1897.....\$6,964,667 85

The revenue though large in the aggregate is not as large as it ought to be. The legislature a few years ago reduced the school tax from 16 cents on the \$100 to 11 cents on the \$100, on the supposition that the increased valua-

tion of property would make up the difference, and that the amount received by the schools would not be lessened. This proved to be a mistake and as a consequence the school term has been reduced in many places. The tax should be restored or local levies must be increased.

ADDRESS OF WM. HAWLEY SMITH.

The annual address before the State Association by Wm. Hawley Smith attracted wide attention and was highly commended. Mr. Smith was already known to large numbers of Indiana teachers as the author of "Evolution of Dodd," and of "Walks Abroad," and was given a hearty welcome. His subject was "The Common People and the Common Schools" which he treated in a popular way. The lecture was full of practical suggestions and illustrated by apt anecdotes. Many of Mr. Smith's hearers would not go the length he does in advocating *special* education. He would begin the special education of a boy early.

Mr. Smith rejects the ordinary definition of an educated man. He insists that a man who has been through college and knows books, but who does not know how to *do* something and earn a living is not educated. His definition is "An educated man is one who has so developed the powers within him that he can do well what he undertakes to do." After giving this definition, he substituted the following from an Irish friend of his: "An educated man is a man who is 'onto his job.'"

It is probable that if Mr. Smith had a chance to explain privately, he would not insist on a literal acceptance of this definition. According to it, Tod Sloan, of Kokomo, the noted horse jockey, is the most highly educated man in Indiana. The *New York Press* in a long article on Tod Sloan says:

"The Hon. Mr. Sloan has announced his intention of returning to this country because he finds it impossible to make more than \$60,000 a year on the other side. Sensibly enough, he argues that it would be foolish for him to remain there merely for the sake of hobnobbing with royalty, when he can earn \$75,000 in this country. In his own vernacular, Tod Sloan is primarily 'out for the stuff,' and he declares, with an assurance born of experience, that he intends to make \$75,000 during the season of 1898."

This brings to mind a remark Tod made to his foster parents not long ago. They expressed a regret that he had not completed his high school course and taken a college education. His reply was that if he had done so he would now be getting on with perhaps ten dollars a week. He had genius of the jockey kind in him of the highest order and could not endure the restraint of school. He is now the best known product Kokomo ever turned out. Tod is "onto his job."

According to this definition, "Kid" McCoy, the champion light-weight pugilist, is another highly educated Indianaian. He is "onto his job."

THE STATE ASSOCIATION.

The writer who has not missed a meeting of the Association in thirty-six years, came near being cheated out of the best one. He was caught on a jury in an important case, and the jury not being able to agree, they were

kept locked up from Monday till Wednesday evening, when the Association was half over. This will account for the fact that he was unable to meet all his old friends. He is glad to know, however, that the Association was well attended and well conducted. The papers were generally good, as the secretary's report will abundantly prove.

THE JOURNAL always gives large space in its February issue to the report of the Association and has no apology to make for it. The secretary, Miss Shealy, has the happy faculty of giving the main thoughts of an address or paper, so that in reading these abstracts, the main thought of the author is easily and clearly gained. The report should be read through from beginning to end. Superintendent Ogg presided over the Association in such a way as to gain many hearty commendations.

OWING to a superabundance of material, quite a number of articles have been crowded out till next month. Friends will please be patient.

THE WASHINGTON PROGRAM and the lessons for supplementary reading found in this issue of THE JOURNAL will doubtless be acceptable and helpful to many readers.

WITH this issue closes the outline work for the Township Institutes. THE JOURNAL feels gratified to know that what it has done in this line has been all that it promised and highly satisfactory to teachers. All agree that the outlines and suggestions on "Plato" by Mrs. Hufford and on "The Language Arts" by Mrs. McRae, have been of more than usual merit.

THE JOURNAL proposes to open a department entitled "The Evaluation of Books," which will certainly be a great help to teachers. An opening statement will be found on another page. To those who know Miss Charity Dye, who will have charge of this department, no word of commendation is necessary. Miss Dye has for years been a close student of books for children, and her judgment will be reliable.

DO NOT forget the National Superintendents' Meeting to be held at Chattanooga, Feb. 22-24. These meetings have more in them for superintendents and those wishing to study school organization and the larger educational problems, than do the meetings of the general association. Indiana ought to send a large delegation. Superintendents must keep up with the procession. The best route is *via* Cincinnati and thence direct to Chattanooga through the most beautiful part of Kentucky. This route runs through Lexington and Lexington is in the heart of the famous blue-grass region.

ART EDUCATION is receiving special attention at the Cleveland, Ohio, schools. Last fall a society was formed by the teachers and school authorities with a view to securing for every school, pictures and statuary of a high order. The purpose is to supplant as far as possible cheap pictures and put

in their place copies of the works of the masters, and other pictures that will be elevating in their tendency. It is the purpose to supply at least one good piece of statuary for each school building. Superintendent L. H. Jones has taken a prominent part in this movement and is one of a committee to purchase pictures.

BOOK EVALUATIONS.

CONDUCTED BY CHARITY DYE.

(Communications addressed to 1122 Broadway, Indianapolis.)

ANNOUNCEMENT.—This department will endeavor to make good its heading; it aims at co-operation in every way—co-operation between the library and the school; co-operation between every teacher who is willing to give another the benefit of her experience and from whom she can receive benefit in return; it also invites co-operation from any person outside of school circles, who is interested in education.

Evaluation work is already old in Dayton, Ohio. It has just started in Indianapolis through the co-operation of the librarian with a committee from the Pedagogical Society. The thought lends itself to any place where teachers meet—it is especially suitable for teachers in township and country schools. It enables one to gain a notion of a book without having to buy it because of attractive title. It saves the time that it would take to examine a book when one is pressed with duties; it gives the seeker the benefit of another's experiences, and always serves as an index to what may be had. The possibilities in this work are many; it is the germ for a catalogue in every school room where a paste-board box and a thick piece of manilla paper for a card can be had.

These columns will be open to book evaluations made in obedience to the card given below; the items can be placed close together but should be mentioned in the order given and the reader's name must appear in every case. The form is intended for the card catalogue and the evaluations can be easily transferred from these pages to the card where both teacher and student may have it at hand.

EVALUATION CARD.

| | |
|------------------------|--------------------------------|
| AUTHOR..... | IMPRINT..... |
| TITLE..... | |
| SUITABLE FOR BOY?..... | GIRL?..... AGE..... GRADE..... |
| SUBJECT..... | |
| LOCALITY..... | PERIOD..... |
| INFORMATION..... | |
| LANGUAGE..... | ILLUSTRATIONS..... |
| MORAL TENDENCY..... | |
| COMMENT..... | |
| | |
| DATE..... | READER..... |

A card sent from Dayton, Ohio, is given below :

"Lillie, Lucy C. Music and Musicians. Suitable for a boy, especially for a girl, age 12-16. Grade 6-8, though it could be read with profit by older students. Subject as in the title—Sketches of lives of great musicians ; good suggestions for the study of harmony. Information exact—but some noticeable omissions, such as the mention of the Benedictus in discussion of the mass. Language, choice. Illustrations, good. Moral tendency, excellent—teaches perseverance in spite of discouragements. This excellent book could be read with pleasure by any one for the anecdotes about Beethoven, Haydn, Bach, Van Weber, Mendelssohn and their friends. Read Jan. 1, '97, by August Foerste."

QUESTIONS AND ANSWERS.

STATE BOARD QUESTIONS USED IN DECEMBER.

READING.

1. *In what sense are "reading" and "literature," as school subjects identical?*

In the sense in which the reading treats of the different phases of human life. All pure literature, in this sense, serves as reading ; but not all reading should be classed as literature. That reading matter which serves to instruct in the sciences is not literature in the strict sense.

2. *What are the advantages in the use of complete literary selections in teaching reading?*

The advantages derived from using complete literary selections are ; (a) the opportunity given to grasp the theme, the purpose, and the embodiment early in the study of the selection ; (b) the increased benefits derived from the study of the selection as a unit, as compared with its study in sections ; (c) the increased interest created by studying it as a whole, the mind thereby having an opportunity to appreciate the interdependence of the parts and their connection in forming a whole.

3. *What do you understand by method in reading? Is it important?*

Method in reading is important if it is method evolved from the nature of reading itself. The selection must be studied as a whole ; the theme, the embodiment and the purpose must be kept prominently in view continually ; and there must be a constant study of the adaptation of the parts to each other, and to the forming of a whole. If by method in reading, we mean the study of a selection in this way—making the thought therein expressed the basis—then method in reading is important.

4. *Discuss the reading work of the first three years as outlined in the State Manual. (If you are teaching in a graded school, discuss the year or years you teach.)*

See State Manual.

5. *Does the general plan of the first, second and third readers harmonize with the course of study?*

Partially so.

6. *Give the relative importance of oral and silent reading in the school.*

They are of equal importance, and mutually strengthen each other. For several years past there has been a tendency to ignore oral expression in reading to the serious detriment of the pupil—his articulation, emphasis, and vocal expression generally, being very poor, for lack of practice and training.

SCIENTIFIC TEMPERANCE.

1. *State some of the conditions of the human system that in the judgment of some persons demand the administering of alcohol.*

(a) The low condition brought on sometimes by certain fevers; (b) the condition brought on by fainting; (c) the condition brought on by exposure to severe cold; (d) the convalescent condition for which some physicians prescribe certain kinds of alcoholic stimulants, such as wine, or beer, etc.

2. *If alcohol does not lower the temperature of the body how do you explain the excessive drinking of beer in hot weather?*

The beer is cool from the influence of ice and produces in the system a temporary feeling of coolness; the large amount of water in the beer produces a profuse perspiration which, by evaporation, causes a lowering of the bodily temperature; and the ultimate effect of the alcohol itself is to lower the temperature of the body.

3. *When alcohol is applied externally to the skin why is the effect upon the capillaries different from the effect when alcohol is taken internally?*

When alcohol is applied externally, its rapid evaporation causes a coldness that contracts the capillaries thereby lessening their caliber and the amount of blood in them. When alcohol is taken internally, it induces a reduction of nervous control of the blood-vessels; and this is, of course, followed by a dilatation of the blood-vessels, which manifests itself by a flushing of the countenance.

4. *The respiratory system suffers what evil effects from the use of alcoholic stimulants?*

By the paralyzing influence of alcohol upon the great sympathetic nerve, its sensibility to the impulse of healthful respiration is diminished, and consequently the breathing capacity of these organs is also lessened. Moreover, the continued congestion of the lung tissue results in its becoming thickened and hardened, thereby obstructing the absorption of oxygen, and the escape of carbon dioxide.

5. *What are the chemical constituents of coffee? Of tea? Why are they popular as drinks?*

The constitution of raw coffee is about as follows: Cellulose, 34.0; water, 12.0; glucose, dextrine and organic acid, 15.5; legumen and casein, 10.0; other nitrogenous substances, 3.0; caffeine, 0.3; caffetannate, 4.0; ash,

6.7 ; other substances, 4.5. The chemical elements constituting these substances are carbon, oxygen, hydrogen, nitrogen and potassium.

The constitution of tea will average about as follows: Cellulose, 25.0 ; extractive matter, 22.0 ; coloring matter, 20.0 ; tannin, 15.0 ; albumen, 3.0 ; theine, .5 ; gum, 8.0 ; resin, 2.5 ; other matters, 4.0.

Both are stimulating, and thereby increase the power of enduring fatigue ; both relieve the sense of fatigue ; and both are used to increase the capacity for mental work, by producing wakefulness and clearness of intellect.

6. *What is meant by a "hob-nailed" liver?*

By a "hob-nailed liver" is meant a liver, which, from the effect of alcohol, has an irregularly puckered appearance, brought about by the contraction of the septa, the fine bands which serve as partitions between the hepatic lobules.

7. *Why is it oftentimes the case that offensive sores are to be seen upon the face of the habitual drinker?*

The continued use of alcohol soon impairs all the bodily functions, among them that of the skin in the process of throwing off impurities ; through the lack of nervous control, the capillaries are congested and their walls weakened.

PHYSIOLOGY.

1. *Describe a simple experiment which will show osmosis. How may it be shown that the interchange is in two directions? May starch be used to show this?*

At the end of a glass tube fasten a bladder filled with a strong solution of sugar. Insert it into a jar of water, and mark the height to which the solution stands in the tube. The column will soon begin to rise slowly. On examination, we shall see that the solution is passing out through the pores of the bladder and mixing with the water, while the water is coming in more rapidly, the greater flow always being toward the denser liquid. *Colloids*, a class of substances to which starch belongs, should not be used to illustrate osmosis, as they diffuse with extreme slowness.

2. *If oxygen be made to bubble through one vessel of fresh blood and carbon dioxide through another, what difference in appearance should be observed?*

The oxygen will cause the blood to turn to a bright red, or scarlet ; and the carbon dioxide will cause the blood to turn to a dark purple—red color.

3. *What relations exist between the science of chemistry and physics and the science of physiology?*

Chemistry teaches us the component elements of the body and of the food we eat, thereby enabling us to choose more wisely our nourishment. Chemistry also reveals to us the nature of the changes that take place in digestion, circulation, and respiration, thereby enabling us better to understand these processes and to preserve our health. There are various phenomena connected with the special senses, with the exertion of muscular power, and with the circulation of fluids, that are governed by certain laws of physics.

4. *What is the relation of physiology to psychology?*

The relation of physiology to psychology is very close and important. The various processes of the body are under the control of nerves dependent upon the state of the mind for the amount of influence they exert. The mind acting through the cerebrum has supreme control of all the voluntary movements of the body. Violent emotions quicken the action of the heart; pleasant emotions give a healthy tone to the vital organs; while painful emotions derange their actions and depress the system.

5. *How and by what is the beating of the heart controlled?*

The beating of the heart is controlled chiefly by nervous apparatus existing in the heart itself, consisting of microscopic ganglia and of nerve fibres proceeding from them; and partly by fibres from the pneumogastric, the spinal accessory, and the sympathetic system. The beating of the heart is continued through the influence of the reflex excitations caused by the entrance of blood; and through the instinctive effort of the system, including the heart, to sustain the life processes.

6. *Who are some of the persons who have made important additions to our knowledge of physiology?*

Harvey, Malpighi, Brunner, Peyer, Helmholtz, Carpenter, Foster and Wundt.

UNITED STATES HISTORY.

1. *Who were the Tories in the American Colonies during the Revolution? What can you say as to the reasonableness or unreasonableness of their action? (Write about 200 words.)*

During the Revolution the Tories were the adherents of the crown. During the war their leaders were in continual correspondence with each other, with the British government, and with the royal commanders in America. In places they banded together and carried on a kind of guerrilla warfare, in which they were very cruel. In many ways they no doubt prolonged the war, by giving aid and comfort to the British. [The answer to the second part of the question depends upon how you view the issue, or where you place your sympathy.]

2. *Did the men who framed the Federal Constitution foresee the action of political parties under the Constitution? Give instances justifying your answer.*

Their debates indicate that to a certain extent, they did; but they certainly did not foresee such a "jangling of voices" as the last quarter of a century has brought about. Could they have foreseen some of the debates of Congress they might have been more explicit in regard to the "general welfare" clause, the tariff, the money question, etc.; but we should be careful how we make such suppositions, for it was only by an exercise of much forbearance and conservatism that the Constitution was made possible.

GEOGRAPHY.

1. *Explain what is meant by types in geography. Illustrate.*

A type in geography is a sample individual of a class of geographical forms or features; a general form possessing the essential characteristic of

the class. Vesuvius is a typical active volcano. The Rocky Mountains, a typical system of mountains. The Ganges delta, a typical delta, etc., etc.

2. (a) Which is the greater longitude west, New York City or Valparaiso, S. A.? (b) Which is in the greater northern latitude, Boston or Venice?

(a) New York. (b) Venice.

3. What is the true function of map drawing in the study of common school geography?

It is to represent to the eye the relative position of objects on a portion of the earth's surface; and, by the use of arbitrary lines, to help reproduce, or recall to the mind's eye images of the various forms and features of the earth's surface.

4. How would you develop in the minds of your pupils the idea of latitude and longitude?

In teaching latitude and longitude the globe should be used. First, give the pupils the puzzle of locating a spot on a plain globe. They will soon agree that they cannot describe where it is. Put one line around the globe (representing the equator). Now, by proper questioning, lead the pupil to see that the position of the spot can be partially described, but not wholly. Skillful questioning will develop the fact that another fixed line around the globe is necessary to determine exactly where the spot is located. To make the point clearer, the teacher may develop how the location of a house may be described by telling its distance and direction from each of two streets that cross each other at right angles.

5. In what directions do the noon shadows fall in the South Temperate zone? In the Torrid zone?

(a) Toward the south. (b) Excepting the spot just beneath the sun, the noon shadows of objects within the torrid zone, but north of the sun, fall toward the north; and at the same time the shadow of objects within the torrid zone, but south of the sun, fall toward the south; the day the sun reaches its farthest limit south, all the noon shadows of objects within the torrid zone fall toward the north; and the day the sun reaches its farthest limit north, all the noon shadows of objects within the torrid zone fall toward the south.

6. Name the four kingdoms and give the number of other States that comprise the German Empire. What connection, if any, is there between the geographical situation of Germany and its large standing army?

Prussia, Bavaria, Wurtemberg, and Saxony. There are twenty-two others, including Alsace-Lorraine. Germany occupies a central position among other strong powers, and among them all there are more or less jealousy and rivalry, which keeps a "war-cloud continually hovering in the horizon." Such a condition of affairs necessitates the existence of a large standing army.

SCIENCE OF EDUCATION.

1. In the Protagoras, Socrates appears in contrast with the higher Sophists. What are the principal points of contrast?

The higher Sophists contended that it was not possible to arrive at the truth. Socrates was a firm believer in the truth and in the possibility of attaining it, and hence was a persistent seeker after it. He also maintained that virtue could not be taught, that it was an inborn characteristic (see page 64); while Protagoras as honestly believed and asserted that virtue could be taught.

2. *What does Protagoras mean by the contention that virtue can be taught?*

He regards virtue not as given by nature, or growing spontaneously, but as capable of being learned and acquired by study; that punishment is chiefly for the purpose of teaching virtue, that all the care of the home, the school, and the state is for the purpose of inculcating virtue. But Socrates puts one more "little question" to him. (See page 90, etc.)

3. *What is the view of Socrates on the question as to whether virtue can be taught?*

He maintains in the argument that it cannot be taught, that the virtues Protagoras held to be different are one, and that all things are knowledge—a conclusion that seems to be confusing and contradicting. (See p. 101.)

4. *What is the subject of the symposium?*

Love.

5. *In what sense is the symposium dramatic in style and spirit?*

See page xxx, etc., of the General Introduction.

6. *Is the characterization of Socrates by Alcibiades a judicial estimate? Give reasons.*

It is not. It is considerably overdrawn, by reason of his great admiration for Socrates.

THE LANGUAGE ARTS.

1. *When, according to this author, did the education of the human race begin? What was the beginning of teaching?*

(See page 27 for the answer to each part.)

2. *Group the stores of ideas of the boy six years of age.*

(a) Ideas of the natural world about him, or of sense objects; (b) ideas of the social world; (c) abstract or general ideas; (d) judgments and inferences; (e) ideas from the "stream of tradition." (See Chap. V.)

3. *Give the relation of contact to the acquisition of knowledge. What is the function of the teacher in the child's acquisition of knowledge?*

To acquire knowledge it is necessary to be brought in touch with it. This fact requires no proof; it is self-evident. It is the duty of the teacher to bring about this contact skilfully. (See Comment on Chapter V.)

4. *State briefly the origin of the child's language. Enumerate the steps a child takes in learning to speak.*

(a) "Instinctive vocal utterances which are constantly enlarged by exercise." They are "purely reflexive and mean no more than the quiver of a nerve or the contraction of a muscle."

(b) Sounds intended to have meaning. "The first words uttered are meaningless."

(c) Words with meanings. To these the author adds instinctive mimicry and conscious mimicry. (See pages 33, 34, 35.)

5. *Name the three things which the language work of the primary grades should try to do.*

(a) To lead the children to form the habit of using language grammatically correct; (b) to form the habit of expressing themselves clearly; (c) to increase their vocabularies.

GRAMMAR.

1. *State the marks of a good definition. Illustrate.*

1. Give the name of the thing to be defined; 2, put it in the smallest known class; (The more restrictive this limitation can be made, the better the condition for making the remainder of the definition direct or exact) 3. give the features or characteristics which distinguish it from others of that class.

Example. (A verb) (is a part of speech) (which affirms or predicates something of some person or thing). 1. In the first parenthesis is the name of the thing to be defined. 2. In the second parenthesis it is placed in the smallest known class. 3. In the third parenthesis are found the features or characteristics which distinguish the verb from others of that class; as the noun, preposition, etc.

2. *Define an interrogative sentence. What elements of the thought may be unknown and sought for? Illustrate each.*

An interrogative sentence is one expressed in the form of a question. The subject may be asked for; as, Who broke the window? *John* broke the window. The predicate may be asked for; as, What did he do to the window? He *broke* it. In other cases, some part of the subject, or some part of the predicate may be asked for.

3. *Write an example of each of the following sentences: Declarative, interrogative, exclamatory and imperative. Why do we divide sentences into these classes?*

Sentences are divided into these classes, because they are the kinds which usage or experience has shown to be necessary in our communication with mankind. To indicate the nature of our thought, we (1) assert or deny, (2) interrogate, (3) exclaim, (4) command or entreat. These four ways of speaking or writing cover all the possible impressions which one may wish to convey.

4. *Compare and contrast the adjective and the attributive verb as to their modifiers. Illustrate.*

An adjective may be modified by, (a) an adverb; as, he is *worldly* wise; (b) an adverbial objective; as, he is *ten years* old; (c) a prepositional phrase, as, he was *wise in his choice*; (d) an infinitive, as, he is *anxious to go*.

An attributive verb may be modified by, (a) an adverb, as, he *steals frequently*; (b) an adverbial objective, as, it *weighed ten pounds*; (c) a prepo-

sitional phrase, as, he *rode to the city*; (d) an infinitive, as, he *studies to learn*; (e) a direct object, as, he *saws wood*; (f) an indirect object, as, he *gave him an apple*.

5. *Show how the sentence, phrase, and the clause differ, one from the other. Illustrate.*

A sentence is a complete statement. A clause is a part of a sentence, that contains at least one subject and one predicate, thereby expressing at least one proposition. In structure, the clause may be simple, complex, or compound; as, (a) the man *who slanders me* is my foe; (b) the tree will live *if you plant it as I directed*; (c) you will remember it with pain, *when reparation is impossible, and when the deed is done*.

The phrase is a group of words expressing an idea, but not constituting an entire proposition; as, (a) I will go *at once*; (b) she is modest *to excess*; (c) the boy intends *to work faithfully*; (d) he was useful *in the field and in the cabinet*.

6. *What is arrangement? Name the kinds and illustrate each.*

Arrangement is the order in which the parts of a sentence occur. The two kinds are, (a) the natural; as, the vessel glides amid the waves; (b) the inverted; as, amid the waves the vessel glides.

7. *Is grammar an inductive or deductive subject? Give reasons for answer, and illustrate.*

It is an inductive science, and should be taught inductively.

ARITHMETIC.

1. *Write out such explanation as you would give to a class to convince them that the sum of three and eight is eleven and their product is twenty-four.*

The class is introduced first to the group eleven; each member of the class knows from previous study and from counting the objects in the group, that it contains eleven objects. In the study of the group eleven, the teacher at the proper time separates it into two groups, one containing three objects, the other containing eight objects. From previous work and from counting, if necessary, each pupil sees that one group contains three objects and the other group eight objects. He now knows, and is led to express, the truth, that three objects and eight objects are eleven objects.

Let the members of the class each be given twenty-four objects, Direct the pupils to separate the objects into groups of threes and then to count the number of groups; the fact that eight groups have been developed the pupils know and are led to say that eight threes are twenty-four. Next, direct the pupils to separate the objects into groups of eights and then to count the number of groups; the fact that three groups have been developed the pupils know and are led to say, that three eights are twenty-four.

2. *What number will divide 1523, giving a quotient, 31 and a remainder $\frac{1}{3}$?*

$(1523 - \frac{1}{3}) \div 31 = 49\frac{1}{3}$, answer.

Proof: $49\frac{1}{3} = 49\frac{1}{3}$; $1523 = 1'49\frac{1}{3}31$; $49\frac{1}{3}$ is contained into $1'49\frac{1}{3}31$, 31 times, and $\frac{1}{3}$, or $\frac{1}{3}$ remains.

3. What is the least common multiple of 6, 6^2 , 6^3 , 9, 18, 81, 8, 12?

The L. C. M. is 648.

4. A laborer working for \$1.75 has his wages reduced 15%, and sixty working days afterwards his wages are raised 15%. How do his final wages compare with that he first had, i. e. \$1.75 a day? What was the amount of his loss during the sixty days due to the reduction?

85% of \$1.75 = 1.4875; 115% of 1.4875 = 1.7106¼; 1.7106¼ is 97¾% of 1.75 or 4½ cents less on the day; $(\$1.75 - \$1.4875) \times 60 = \$15.75$, loss.

5. What length of fence (to the nearest foot) will be required to enclose a square field containing an acre?

1 acre = 43560 sq. ft.; $\sqrt{43560} = 208.71+$; $208.71 \times 4 = 834.84$; hence, the answer to the nearest foot is 835 feet.

6. Does it pay to import goods under the following conditions: Cost in London £2, 10s. per ton; freight to New York, 21s. per ton; duty, \$2.15 per ton; profit expected on the total cost at least five per cent.; the market price of the same goods in New York is \$20.35 per ton?

£2, 10s. + 21s. = £3, 11s. = £3½ = \$17.27; $\$17.27 + \$2.15 = \$19.42$; 105% of \$19.42 = \$20.39; this is 4 cts. more than the price per ton in New York (\$20.39 - \$20.35 = \$.04); hence 4 cents per ton is saved by buying in New York.

7. At what time would a telegram sent from Chicago at 10:20 a. m. reach Berlin if twenty minutes were consumed in transmission? Longitude of Chicago, $87^{\circ} 35' W.$; Berlin, $13^{\circ} 24' E.$

$87^{\circ} 35' + 13^{\circ} 24' = 100^{\circ} 51'$, the difference in longitude; this corresponds to a difference of time of 6 hrs. 43 min. 56 sec.; hence, at Berlin it is 6 hrs. 43 min. 56 sec. after 10:20 A. M.; which would give 3 min. 56 sec. after 5:00 P. M.; if 20 min. is required for transmission, the time of the arrival of the telegram will be 23 min. 56 sec. after 5:00 P. M.

8. At what rate, simple interest, will \$134.10 amount to \$139.47 in one year, two months and five days?

$\$139.47 - \$134.10 = 5.37$, the interest; At 1% the interest for the given time is \$1.583125; $5.37 \div 1.583125 = 3.388$; hence, the rate is 3.388%.

NOTES ON METHOD IN ARITHMETIC, by Samuel E. Harwood. Cloth. 16mo, 68 pages. Price, 25 cents. The Inland Publishing Company, Terre Haute, Indiana. The contents of this book are arranged under three heads: Method, Discussion of Outline and Typical plans for Teaching. The two views of method are clearly set forth. In the discussion of outline plans, a teacher will find much to aid him in his work in number, especially under the topic, "Movements of Mind in Learning Arithmetic." The "Typical Plans for Teaching" are very helpful and are evidently the fruit of a wide and varied experience. The author insists on the application of method to the three-fold nature of the child; on the teacher's clear understanding of the movement of the child's mind; and on great care in the choice, use, and arrangement of the devices. The book is small, but worthy of much careful study.

TOWNSHIP INSTITUTE OUTLINES.

PLATO'S REPUBLIC.

Considered merely as a scheme of government, it is easy to see, in the light of the centuries' experience, that Plato's ideal *Republic* could never realize itself.

In his work upon "The Education of the Greek People," Prof. Thomas Davidson has shown very clearly wherein the inherent weakness of Plato's theoretical *Republic* consists. "With respect to this ideal polity," says Professor Davidson, "there are five points that deserve attention: (1) It is founded upon a crude metaphor; (2) we are nowhere told how it is to be evolved out of existing conditions; (3) it is founded upon truths accessible to only a small and exceptionally gifted portion of mankind; (4) it takes no account of human affection or individual weal, and therefore deals with only an abstract fragment of man; consequently, (5) instead of being a means of freedom, it is an organ of the most complete despotism that can be imagined.

* * * * *

"The *Republic* is a work of art, and has all the characteristics of such. It presents a sculpturesque group in a static condition. It reveals neither past growth nor future progress. Like all Utopian schemes, it fails to take any account of that very evolution which is the life of society. It has nothing to say about the material out of which, or the method by which, the new order is to develop itself, nothing about any principle or goal of progress whereby its life is to be guided. It comes from nowhere, and it goes nowhere. There is here a capital defect. To any scheme of social regeneration which is other than a mere dream two conditions, above all others, are essential: (1) That it shall take full account of the conditions to which it is to be applied—the grade of intelligence, the desires, aims, and ideals of the people whom it undertakes to elevate; (2) that it shall make continuous struggle and progress possible by exhibiting an aim or ideal calculated to enlist universal interest and energy. Failing, as it did, to fulfil either of these conditions, Plato's *Republic* remained a mere dream, encouraging a tendency, always common enough, to separate theory from practice, and to make a fantastic picture of social perfection do duty for a sustained effort at social amelioration.

* * * * *

"Plato's *Republic* takes no account of human affection or individual will, and therefore deals with only an abstract fragment of man. This is the common fault of all authors of Utopian systems from Plato onward. They treat men as if they were fragments of glass to be arranged into a pleasing mosaic, embodying some theoretic idea coming from outside. In the case of the *Republic* it was supposed to come directly from God, and to be communicated to philosophers, who were thus commissioned to construct and keep in order the social mosaic without any regard to the affections or will of its component parts. Men's affections, to a large extent, are directed upon home (which implies property), wife, and children, and their

will seek to select their own environment and sphere of activity. All these objects Plato would take away. The citizen of his *Republic* is to have neither home, property, wife, nor child for his affections, nor any choice with regard to his own surroundings or occupation.

* * * * *

"Whereas the current education aimed at producing capable citizens, practical, active and patriotic, that of Plato seeks to develop philosophers, whose home and chief interest are in the invisible world. Those children who prove incapable of higher instruction are soon relegated to the industrial class, whose aim is supposed to be having, not being. The others continue their curriculum till about the age of thirty, when those who show no special aptitude for dialectics, but seem active and brave, are assigned to the soldier class, the few that give evidence of higher capabilities proceeding with their studies until, having attained the divine vision, they are admitted to the ruling philosophic class. In all this individual affection and will are completely ruled out.

"Plato's *Republic*, instead of being a means to freedom, is an organ of the most complete despotism. * * * Any form of government which is based upon mystical principles inaccessible to the individual reason and imposed (*octroyes*) from without, and which disregards individual affections and will, is of necessity a despotism, no matter what title it may assume, what lofty sanctions it may claim for itself."

MRS. LOIS G. HUFFORD.

THE LANGUAGE ARTS.

Expression of thought must be an important part of the daily experience of every child. The teacher needs to make himself a most helpful guide, and to pursue with the utmost fidelity the duty of giving opportunity for the oral and written communication of thought. In the every-day practice of telling not only what he knows, but something of what he feels, the child is approaching both the art and the science of rhetoric in a way that will enable him later on, both to deduce the principles of rhetoric and to appreciate the laws of mind upon which the science of rhetoric is founded. All through these early years, the teacher needs to see a worthy end from the beginning, so that there may be in his mind a persistent effort by all available means to help the child to grow from unconscious, even spontaneous expression, to a conscious mastery of the principles of rhetoric. It is entirely possible for one to be able to repeat definitions and to state principles with ease and yet, in his own composition, to violate most of the rules with the form of which he is so familiar, but in the application of which he is so lamentably unskilful.

Long before the pupil is able to crystallize into definite statements what he feels and knows to be ways and means to effective discourse, he can have many appeals made to his aesthetic sense by the literature which he may come to love. The all-important requisite in the study of literature is that the child become a book-lover. Out of the love for books will grow up an instinctive appreciation of the method employed in the beautiful workmanship. The learner will have taken his first step when he feels his own faulty

style, for then will he be ready to apply a principle for its correction. If the teacher, in a reading lesson, now and then, stops to call attention to a happy expression, a word fitly chosen, a phrase aptly turned, to note the difference between the commonplace from the poet's exquisite touch, he may cultivate that sense of melody and harmony which may become in a way a law unto itself. However, there is some every-day drudgery to be done. Nothing will fully take the place of a well-directed rational drill in correct forms.

Spontaneity is likely to suffer at the hands of criticism. To say something, even in a blundering way, is far better than to dwarf real thought by the measured, careful phrasing which soon descends into mere pedantry. The gabble that bespeaks a full mind and heart is to be encouraged. To feel, to know something and then to say it gives readiness. The habitually silent man may put weight into his few utterances—a weight that may stand for much influence—but a few of these weighty words will create the needed balance. The man who has much to say and who says it, is after all the man who gets most in return. Expression begets ideas. One finds something more to say by saying that which he has to say. So while criticism has a needed function to perform, it must be more carefully guarded lest it overstep its helpful limits and become a hindrance to free, easy language development. One has but to recall his own experience as a child to realize most vividly the effect of a too critical surveillance of the simplest every-day happenings in a child's life. Can a child help stubbing his toe and falling in disgrace when he is conscious that some hypercritical, long-faced elder is watching every step to see that it is properly taken? The ideal is approached when the learner becomes in a large measure law unto himself. Sympathetic, skilful direction is what he needs that he may come to be guided from within. The sense of accuracy, of proportion, of harmony, may come to take such possession of the being as to make a violation of good taste seem an offense against the very nature. Then criticism will have served its highest purpose because self-direction will have been established.

EMMA MONT. MCRAE.

TIPPECANOE COUNTY.—Superintendent Sullins having visited all his schools, January 1, sends out a circular letter to his teachers. He finds the schools improved in many regards. He criticises some schools for some things. He makes several good suggestions and a few announcements.

INDIANAPOLIS.—Superintendent Goss, of the city schools, says that the truancy law has met success beyond the expectations of its advocates. He estimates the number of children added to the public schools of the city by reason of the law at 1,000. He does not think there are any great number of children subject to the provisions of the law out of the schools at this time. While a considerable part of the 35,000 children of school age of the city are not attending school, most of these are exempt from the truancy provisions of the law, as they have passed the age of fourteen years. The cost of the administration of the law has been very reasonable. The salaries of the truancy officers for the entire year will not exceed \$1,000.

MISCELLANY.

SPECIAL OFFER.

We have at our command a number of remarkably fine portraits of Washington, Lincoln and Longfellow. They are life size, 22x28 inches, and just such as have been selling for \$1.00 each. If possible, every one of these pictures should be in every school room and they are fine enough to adorn the walls of our homes.

To any one sending us a new subscription to the JOURNAL or the renewal of an old one, and \$1.25, we will send the JOURNAL one year and one of the aboved named pictures. To any one sending us two new subscriptions or two renewals and \$2.50, we will send two copies of the JOURNAL (separate addresses) and all three of the pictures. Just a little exertion will secure these beautiful pictures, and if the order is made promptly the pictures can be sent in time for use this month.

MUSIC IN INDIANA SCHOOLS.

The March and April numbers of the SCHOOL JOURNAL will each contain an article from the pen of Mr. W. E. M. Browne, of New Castle, chairman of the Standing Commission on Public School Music in Indiana Schools, showing in detail the present condition of music in the schools throughout the state, and the sentiment of school officers and teachers as voiced by the county and leading city superintendents of Indiana. This information has been gathered through direct correspondence, and will prove interesting reading to educators who are debating the advisability of adding to the course of study in their schools, the science of vocal music. Almost every county will be heard from, and the great majority of town and city superintendents are included in this fund of information. The result of this investigation will prove a surprise to many teachers who have not kept pace with the trend of public opinion during the past four years

Eleven county superintendents failed to respond to Mr. B's queries, and it may be, that in order that these counties shall be represented in this "write-up" these officials will yet send in the desired information. For this reason the following questions are reproduced. Superintendents are at liberty to add to what they have already said if so inclined.

QUESTIONS.

1. How many (.....) districts, and what town or city schools in your county have music, more or less, as a science, taught in them?
2. What schools, if any, have a supervisor, or special teacher of music?
3. Do your school officers and teachers, generally, favor the addition of vocal music to the course?
4. Is the printed outline in music followed in your township institutes?
5. Is an effort towards adding music to the course in your schools probable?
6. Give name of special music teacher or supervisor if any?
7. Is the work progressing satisfactorily?
8. If not, why?
9. Any further suggestions?

THE STATE BOARD QUESTIONS.

These questions for the last few years have often been very amusing, that is, to those who were not called upon to answer them. They have called forth the sharpest criticism from one end of the State to the other. These have in the main been solid and to the point.

The question that surpasses in absurdity all others that have been placed before the teachers of Indiana for the last twenty years at least, is one of the geography questions used in April, 1896. It is this: "The ocean south of Cape Cod is filled with the celebrated bluefish, while that just north of it has none. Why is it so?"

The idea that the 15,000 teachers of our state, the majority of them women, should be sufficiently versed in piscatorial lore to know all about the favorite haunts of "the celebrated bluefish" a thousand miles away, is laughable indeed. They are mostly "landlubbers" by birth, but have to hustle to keep their heads above water for all that.

Perhaps the author of this question has been a guest at Buzzard's Bay and took this modest way of telling it.

Seriously, however, the frequency of such questions will most surely weaken the people's confidence in the wisdom of the board that furnishes them.

E. B. MYERS.

Elkhart, Ind.

TWO IMPORTANT COURT DECISIONS.

The Supreme Court has recently handed down an important decision in regard to the contested county superintendency case in Martin county. The court held that the election of superintendents was legal—that the board had a right to elect by resolution, and that one-half the board and the vote of the auditor made a legal election. The court held that one-half the board could not defeat an election, by absenting themselves or by scattering their votes.

This leaves Mr. McFarland in office. It looks as if the decision virtually settles the case in one or two other counties.

The Circuit Judge of Jay county has rendered a decision in regard to the contested case in that county which seems to have the effect to confirm Superintendent Crowe in his position. One of the trustees in this county, prior to the election of Superintendent Crowe in June, had accepted a place as post-master. As his successor had not been elected at the time of election, he insisted that he had a right to vote, and did vote; and to strengthen the position he had taken he resigned the place as post-master.

The court held that the acceptance of a second office vacated the first and that he could not reinstate himself.

THE BENTON COUNTY TEACHERS will hold their association at Fowler, February 4-5. A good program is provided.

The Vincennes is the name of a sprightly monthly published by the students of Vincennes University. All the indications are that the new president of the University, A. H. Yoder, is doing a good work.

THE CHRISTMAS NUMBER of the *Portland High School Apropos* is at hand and makes a creditable showing for its managers.

THE KNOX COUNTY GRAND JURY recently returned 176 indictments, two-thirds of which were for selling cigarettes to minors.

The High School Oracle, of Kokomo, advocates the formation of a High School State Athletic Association. This is a matter worth considering.

FAYETTE COUNTY held its Association January 15, and had a large attendance and excellent interest. What else could be expected with W. H. Glasscock, Geo. F. Bass, J. A. Greenstreet, W. F. L. Sanders and H. R. Houghton as speakers? Calvin Ochiltree is county superintendent and is doing good work.

THE NORTHERN INDIANA NORMAL SCHOOL, at Valparaiso, sends out a "Special Announcement" with reference to its department of Psychology and Pedagogy. Prof. Sanford Bell has charge of this department and the character of his work is of a high order and attracting attention beyond the borders of Indiana.

COMMISSIONED HIGH SCHOOLS.—The State Board at its last meeting issued commission to the high schools of the following named places: Dana, Butler, Nappanee, Decatur, Lowell, Hobart, Geneva, Montpelier, Jonesboro, Winamac, Hartford City, Vevay, Rising Sun, Aurora, Sullivan, Jasper, Boonville, Orleans, and Mooresville.

INDIANA UNIVERSITY.—Dr. Swain says that the institution has fifty more students now than it has ever had before at this time in the year. The number is 800, but before the end of the term he expects that the total enrolled will reach 1,000. The University celebrated its sixty-seventh anniversary January 20 and carried out an elaborate program.

STATE MANAGER GEO. F. BASS, informs the writer that the sale of books for the Y. P. R. C. is very much larger than was expected at the beginning of the year. In many instances schools devise means for getting the money and purchase the books themselves. In many more cases the trustees agree to duplicate what the schools raise. In other cases the trustees pay in full.

REMINDERS.—Every person who did not pay for the SCHOOL JOURNAL at the time he subscribed for it agreed to make payment on or before Jan. 1, 1898. This was the uniform understanding to which there were but few individual exceptions. If a few persons forget or neglect to pay as agreed, it makes but little difference to the editor, but when a *thousand* fail to pay, it does make a difference. Please do not delay longer, and put the editor to the trouble and expense of sending you a *reminder*.

EVANSVILLE.—Through the munificence of Maj. A. P. Rosencranz and wife, a completely equipped industrial and technical school will be provided for Evansville. Plans are being prepared for the structure which will be after the most improved ideas, and it will contain all appliances necessary to the training of young men who are to engage in industrial pursuits. Major Rosencranz acts wisely in expending his wealth and seeing it do good before he dies. Other wealthy men in other cities might take a suggestion.

GREENCASTLE.—In the two largest school buildings the teachers have recently given a "reception" to parents and patrons, the purpose being to establish a closer relation between teachers and parents, and also to organize societies for child study. Superintendent Ogg was present at each meeting and made a short address. The result in each case was the organization of a sort of mothers' club for the purpose of child study along practical lines. This is a good work which should be "indulged in," in many more places.

WEST LAFAYETTE.—Superintendent Horace Ellis says: "Our total enrollment for the year thus far exceeds 600. We have 168 in the high

school—a higher percentage than any other school in the state can show. Every second Friday afternoon is devoted to lectures exclusively, the University especially favoring the school with such persons as Dr. Stone, Mrs. McRae, Prof. Swigget, and Dr. Coulter; while the LaFayette bar and ministry have co-operated to make the year the best in the history of West LaFayette."

SCIENCE TEACHERS.—There will be a meeting of the Science Teachers' Association, of Indiana, at Earlham College, March 4 and 5, 1898. Headquarters will be at the Hotel Wescott, one of the best hotels in the country. Midday lunch will be served at Earlham College on Friday and credit given at the hotel. Prof. Israel C. Russel, of Ann Arbor, will give a stereoptican lecture on the Glaciers of N. A., on the evening of the 4th. A course of science study for secondary schools will be discussed and if agreement can be reached recommended. An interesting program is promised. All persons interested are cordially invited to be present. For particulars address Prof. D. W. Dennis, Richmond.

PERSONAL.

W. H. GLASSCOCK and his wife have both begun work in Indiana University.

MR. O. P. SAMPLE continues in charge at Millgrove, and is serving his third term.

M. D. CUMMINS, of Kosciusko County, is now principal of the schools at Bristol, Elkhart County.

G. H. TAPY, a graduate of Northern Indiana Normal School, is in charge of the South Whitley schools.

A. C. LIFE, of Fairmount, has accepted the position of teacher of science in the Greensburg high school.

JNO. A. SHAFER, I. U. '94, and now "Fellow" in Buffalo School of Pedagogy, would be glad to do some institute work in Indiana next summer.

FINLEY GEIGER has become the acknowledged county superintendent of Blackford County, after some difficulty. He proves to be an excellent man and well suited to the position.

C. L. HOTTEL, superintendent of the Portland schools, has recently published a suggestive article on "Training" in the "educational column" of *The Sun*, a local paper. Such articles must do good.

EDGAR MENDENHALL who was first assistant has been promoted to the principalship of the Greensburg high school to take the place of Geo. L. Roberts who has been promoted to the superintendency.

O. L. LYON, formerly of Greencastle, has left Steeleville, Mo., and is now teaching psychology and pedagogy at the Normal School located at Chillicothe, Mo. He reports a large school and good work.

GOVERNOR MOUNT meets regularly with the State Board of Education and takes part in the discussions. He is the first governor that has ever met with the Board of Education except on special occasions.

MISS CHARITY DYE, teacher of English in the Indianapolis high school, has, out of her experience, written a book, entitled "A Guide to the Study of Fiction." It is published by Ginn & Co. and is due in a few days.

F. A. COTTON was re-elected secretary of the Reading Circle Board, after the Board re-organized under its new constitution. Mr. Cotton is making an excellent secretary and the Board did a wise thing in re-electing him.

J. M. CALLAHAN, an Indiana man, well known to Indiana teachers, who recently took his degree at Johns Hopkins' University is now engaged in giving a course of historical lectures at Hamilton College, Clinton N. Y.

MRS. LOIS G. HUFFORD, teacher of literature in the Indianapolis high school, recently gave an illustrated lecture in Plymouth Church, Indianapolis, on Shakespeare. The audience was very large and went away delighted and instructed.

S. C. HANSON, superintendent of the Williamsport schools, and author of several popular music books, recently conducted the music at a Teachers' Institute at Washington, Pa. He writes, "It was an immense affair, as are all Pennsylvania institutes."

OUR OLD friend Arnold Tompkins, recently made a short stop in Indianapolis, on his way home from Pennsylvania where he had been doing institute work. These people are glad to pay Mr. Tompkins \$100 a week and expenses for his services.

GEO. L. ROBERTS, for several years past the efficient principal of the Greensburg high school, has been promoted to the superintendency of the schools to take the place of W. P. Shannon, deceased. Mr. Roberts is a good school man and deserved the promotion.

DR. T. J. BASSETT, for so many years at the head of the preparatory school connected with De Pauw University, as heretofore announced, is preaching to a large church in Lafayette, but he does not wish to be counted out of the educational family and would, if urged, do a little institute work next summer.

THERE are now four Hoosiers in the faculty of Syracuse University, N. Y. They are: W. H. Mace, American history; C. W. Hargitt, biology; Jno. R. Commons, sociology; Jas. H. Hamilton, economics. These men are all authorized to write Dr. after their names and they are all doing Indiana credit.

G. W. NABER, who for six years was county superintendent of Whitley county, and whose tall form was always conspicuous at the Holiday Teachers' Meeting, was conspicuously absent this year. Upon inquiring it was learned that his eyes had failed somewhat and he has therefore taken the superintendency of a 500 acre farm for his mother-in-law, near Wabash, Ind. He was married in November to his first wife's sister, the remaining child of Mrs. John Mossmon.

W. H. MACE, a man whom Indiana claims, is still filling the history chair in Syracuse University (N. Y.). He has just arranged to give a series of ten lectures before the Rochester, N. Y., University Extension Centre, his subject being, "American Colonial Institutions." This is the fifth course of lectures he has given before this "Centre." Dr. Mace was formerly counted one of Indiana's best institute instructors, but having been in Europe for two years past, his services could not be had. He is now home "for good," and will be glad to accept work in his native state.

MISS FIDELIA ANDERSON has just resigned her place as teacher of English in the Indianapolis High School, after having taught in this school for *twenty-eight and one-half years*, and after having taught in the Indianapolis schools *thirty-five years*. During this time Miss Anderson has been a teacher of much more than ordinary ability, and what is still more, she has during all this time been exerting the best possible influence over the lives of the boys and girls entrusted to her. One of her old pupils recently said: "I have had other teachers who made me feel that I *must* learn, but Miss Anderson always made me feel that I *ought* to learn." At the close of her last day's work she was given an ovation, which she richly merited. Her pupils showered upon her presents and words of high appreciation, and her associate teachers surprised her with a "reception" at which she was pre-

sented with an elegant oil painting. A number of short speeches were made all complimentary of her work, and all regretting that she was not longer to continue her old associations.

BOOK TABLE.

TRAINING FOR CITIZENSHIP.—"How to Teach Civics" is the title of a 40-page pamphlet, by B. A. Hinsdale and published by the Werner School Book Co., Chicago. It is not necessary to recommend this little book on this big subject to those who know the author and the publishers.

Nature and Art, Vol 1, No. 1, is on our table and is a *beauty*. Its purpose is to promote nature study in the schools. It gives over 40 pages of reading matter and contains beautiful colored pictures. It is published monthly at \$1.00 a year. Send 10 cents for sample copy. Address, Nature and Art Pub. Co., 315 Dearborn St. Chicago.

THE NEWEST magazine is called *Music, Song and Story*, and the name denotes its field. The first issue is dated January, 1898. There are 16 pages of lithographed music (sheet music size), all new copyright pieces never before published, and all of very high quality—two piano and five vocal selections, besides a song for children, with music, in the type pages. The February issue will contain a Washington and a Lincoln song. The price is 10 cents a copy or \$1.00 a year—12 issues. The publisher is S. W. Simpson, 70 Fifth Avenue, New York.

E. L. KELLOGG & Co., of New York City, have recently published in pamphlet form, "The Story of a Sand Pile," by G. Stanley Hall. The subject and the name of the author both will command the attention of every reading teacher. Another publication of the same house is "The Educational Creed of Dr. John Dewey" to which is appended a lecture by Professor Small on "The Demands of Sociology upon Pedagogy." It is only necessary to give the names of such authors and well informed teachers will know that the most advanced word has been spoken on the subject treated. No educational writers in the land rank higher than do the authors named above.

'ROUND THE YEAR IN MYTH AND SONG, by Florence Holbrook. Cloth, 12mo, 200 pages. Illustrated. Price, 60 cents. American Book Company, New York, Cincinnati and Chicago. This is intended as a reading book for the third and fourth grades in school and for the home circle, and is worthy of all praise. It is at once attractive, instructive and inspiring. The myths told here are as interesting as stories, and are so chosen and arranged as to develop the child's imagination, give him a love for literature and art, awaken an interest in nature study, and strengthen his ethical sentiment. The illustrations are unsurpassed. No better book could be put into a child's hand, either at home or at school.

THE CIVIL GOVERNMENT OF INDIANA, by W. A. Rawles, instructor in history and economics in Indiana University. Published by Eldredge & Brother, Philadelphia. This little book makes no pretension to being an abridgement of the statutes of Indiana, nor a text-book on the history of the State. It simply attempts to give a concise outline of the governmental machinery and the forces by which it is operated. In order to give a better idea of the origin and growth of our institutions, a historical sketch of Indiana precedes the discussion proper. The author takes a wise view of his subject in placing town, township, county and State government ahead of national government, in importance to the average citizen. The book is wisely conceived and well written and deserves liberal patronage.

OUTLINES OF ELEMENTARY ECONOMICS, by Herbert J. Davenport (author of "Outlines of Economic Theory"). Cloth. Pages, XIV + 286. The Macmillan Company, New York and Chicago. This book gives a very clear and interesting presentation of the subject of political economy. It is divided into seventeen chapters, the development opening up as follows: Scope of the Subject, Man and Environment, Utility and Wealth, The Factors in Production, etc. Each chapter is preceded by a list of suggestive questions bearing upon the special topic to be discussed in that chapter. These questions, touching as they do the observation and the practical experience of the reader, or student, give rise to his own individual views of affairs, and thereby enhances the interest with which he peruses what the author has to say about them. The book is well fitted for high schools, and the suggestive questions are sufficiently broad and difficult for the book to be used with much profit in our best colleges.

BUSINESS NOTICES.

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THE INDIANA KINDERGARTEN AND PRIMARY NORMAL TRAINING SCHOOL—Established in Indianapolis in 1882. Forty-five free scholarships granted each term. Two classes formed each year, one in September and one in February. For catalogue and particulars, address, MRS. ELIZA A. BLAKER, Superintendent, Indianapolis, Ind. 8-2t.

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INDIANA SCHOOL * JOURNAL

VOL. XLIII.

MARCH, 1898.

NUMBER 3.

WHERE SHALL THE STUDY OF HISTORY BEGIN?

JAMES MORTON CALLAHAN

Roland K. Wilson, Bart., in the *Contemporary Review* for September, 1896, makes a plea for teaching history backward. He disagrees with Professor Freeman's idea that the study of history should begin with Greece. He says that present phenomena are the foundation, and that present life most interests the pupil. Beginning with the local government, he would then observe the relations to the central government and finally pass to a study of our relations with foreign peoples and their countries. He would have the past introduced to the student only by means of contemporary events. He would solve present problems by making inquiry as to their immediate antecedents, the size of the problem determining the distance to which it should be traced. For a servant girl, he would stop at six years; for a land-title, forty years; but for larger problems like the Eastern question, he would begin with the dispatch in the morning newspaper and end with Freeman's beginning, stopping to investigate the agreement between the powers, the Crimean War, British India, England and Turkey, religious distinctions, Greek and Latin churches, the capture of Constantinople, the Roman Empire and the East, etc. While he does not hold that each period should be taught backwards, he states that the masses of events taken up should throw light on the later events which we have studied.

Mr. Wilson has said many good things in his article, but all of his statements can hardly be accepted. It is true that the basis for the study of history, like charity, begins at home. It begins with warm, live specimens, and not with dead men's bones. The child will first observe the phenomena which lies near to him. He begins this himself and will only need to be guided. He can see the life and institutions of his own town. He is interested in them. In connection with local geography, he can learn many facts about the society in which he lives. He gets first-hand experience with institutions in the concrete. What he learns regarding the family, the school, the church, the industrial life, and the affairs of government will aid him in forming a conception of what history is. But the pupil's interest does not stop with the present and the local. The child likes to hear of men who died. He becomes interested in what people did far away and long ago in the childhood of the race. He delights in stories of the simple but often exciting life of that distant period. When he becomes older and studies the passionate pamphlets, poetry and orations of the past, he sees something more than mere anatomies which are no longer in use by the spirits. He sees that the past is not a dry museum of facts which have no relation to each other and no connection with the present.

Again, it must be remembered that the past was the foundation upon which the present was built. We can not understand the man of to-day unless we know the man of the past. Present phenomena must be explained by past phenomena. Men are political animals, but they do not create constitutions in a day. Society does not have its clothes made to order nor does it change them suddenly. Institutions, constitutions, laws, educational systems, creeds and social conventionalities have been gradual in their development, their germs far up towards the headwaters of the stream of history. In order to understand them as they now are we must see what they have been in the past. We must study their evolution. The method of study will depend upon the problem we have in view. There is more than one road to Rome. Stubbs says we may study history backwards or forwards. The student who is familiar with the field of history often traces events backwards. It is possible to study both ways and meet in the centre as some railroads have been built. Some historical studies have been made like the Erie canal—by digging

both ways from the center. But for a general view of the historic river, is it not best to begin as far up the stream as our boats can navigate, and sail with the river, watching it enlarge and broaden as it receives its various tributaries? It is true that we may meet with some phenomena to which we have had no formal introduction, but we can get acquainted. We must meet strangers occasionally, but we shall find that they are not so entirely strange after all.

While a young student, Duruy resolved to write the history of France in eight or ten volumes. On becoming a professor he began to gather his material. But as he dug into Gallic soil he struck Roman foundations, and he went to Rome in order to understand them. In Rome he observed the great influence of Greece upon Roman civilization and was thus led to go farther back and explore Greek life. As a result of his preliminary work, he wrote both a history of Greece and one of Rome. He was thus better prepared to write a history of his own country.

We need to know the earlier times—even if they were a burden. A study of the ancient civilizations on the Nile and the Euphrates, the early life of Greece, the rise and fall of Rome, the migrations and civilization of the Teutons, the Middle Ages, the rise of new nations, and the break from the bonds of authority will give a foundation for historic thinking.

The near history upon which contemporary events are hinged is of greater utility to us than the history of some ancient nation that is studied merely for the moral lessons that may be squeezed out of it; but in order to approximately comprehend and interpret present events and phenomena, and in order to understand ourselves and our relations to society, it is necessary for us to have had a general view of the march of the ages, and to have seen, consecutively, the conditions which have formed, reformed, and conformed our institutions. There are some facts which we find it expedient to learn though they are not for immediate use. Nevertheless, in studying early periods of history, the student need not and should not become disconnected with present life and interests. He will find many ideals and experiments which have a direct bearing upon present problems. History is an accumulation of experiments which are worthy of our attention. We are still performing many of the same experiments to-day, although under new conditions. Contemporary events and phe-

nomena are the result of the entire history of the race, and present problems can not always be solved by ascertaining their *immediate* antecedents.

We should study the nations from which our own civilization has sprung. Ideas of free government had been developing in Europe before the American colonies were planted. We can trace the Declaration of Independence to the forests of Germany. English history was our history till 1776. The large part of the people of England were opposed to the policy which finally drove the colonies to separation. The English people were fighting for their liberties at home, while America was winning her own independence. Forces were at work which were, in time, to establish democracy, not only in America, but also in England as the power behind both throne and cabinet. If we study only our quarrels and wars with England, we get a very narrow view of our relation to her.

A fuller study of English history has been curing us of the diseases of our childhood. A study of the English constitution is enabling us to better understand the principles which are embodied in our own, which is its lineal descendant; and its study is also helping us to correct many erroneous ideas about our own constitution, which, though said to be "written," is not all written—for, like the English constitution, our own is also a living, developing constitution whose life blood is not contained in the cold sentences of the written law. Historic facts not only stand behind constitutions and give birth to them, but also stand above them and breathe life and meaning into them for each successive generation.

American is connected with European history not only in its roots, but also in its development. Foreign affairs were closely connected with our politics for many years after we put on the clothes of nationality. The relations between foreign powers may interpret events in our own history. The Monroe Doctrine did not detach us from the rest of the world. American history is a part of a general movement. Steam and electricity and the morning newspaper have been breaking down the barriers that existed between nations. We have been brought into closer contact with the life and problems of European society. The commerce of ideas has existed alongside the commerce of material goods. We are only a part of a larger world society. Ideas traverse seas, and so must history.

The elementary course that is usually given in the seventh and eighth years should be preceded by both a preliminary observation of present phenomena and by a study of the landmarks of general history. The latter may be introduced by some such book as "The Ten Boys on the Road from Long Ago" as the basis for oral and written work. Supplemental work should be given by the teacher. For the high school courses a more thorough preparation should be given for American history. Much attention should be given to English history, and especially to the Tudor and Stuart periods.

For many persons, the education which is best conducive to efficiency in the serious business of life can not include an extensive study of general history. For some who can only take short courses, recent periods may prove more beneficial, but next to preliminary knowledge of his relations to institutions and current life, the student needs to have, at least, a "surface" view of general history. If he only plows the surface he knows more about the "lay of the land" than the man who merely digs himself out of sight in one corner of the field.

Washington, D. C.

INTEREST IN STUDIES.

C. A. MCMURRY.

Up to the present time, the two ideas that have ruled our school work are *discipline* and *knowledge*, the severe exercise of the mental powers on one side and the gathering of useful knowledge on the other. A third idea, called *interest*, is now pressing for full recognition. Many a boy is compelled to go to school who hates it. It were better if he liked it and appreciated it. Many a child has been compelled to read and learn parts of the Bible against his will. It would be vastly better if he could enjoy the parts that he reads and learns. Many children dislike grammar and reading and geography. It would be in every way more promising if their loathing could be turned into spirited enthusiasm. Education should not be allowed to degenerate into a hard dull drill. Joy and enthusiasm are the very life-giving power of education.

Many children learn to read but they don't care anything about reading, or their preference is for the trash and worse than

trash of our book-stalls. What is the important thing for a child who has finished his reading work in the schools, that he should know how to read or that he should have a love for good reading? Rather than have my child come through the school with a fluent and flippant mastery of the reading process, with no care for good books, I should prefer that he be a poor, stumbling, halting, stammering reader, if only he has a love for good books. It is entirely possible for our boys and girls to get the form of knowledge without its spirit and power. Education, in order to get hold of a child's inner self and mould his character in accordance with ideals, must make its appeals directly to his best interests.

But just at this point our boat runs upon a great snag in educational theory. Some recognized philosopher steps forward and says—you mustn't make interest a standard or criterion with which to test studies, and many a trained and experienced teacher responds with a decisive *amen*.

Is interest in school studies a thing to be feared or fostered?

Turning aside for a moment from all this machinery of the schools, with its text-books, teachers, courses of study and means of testing—what is there in this world around us to nourish the original powers and spontaneous energies of children?

There are things in this environing social world and in this physical life of nature about us which awaken strong reactions and energetic effort. If we turn away for a moment from these perfunctory studies of the school and look upon the spontaneous energies and activities that manifest themselves in children and on the other side into the rich and delightful fields of unexplored knowledge into which children may be led, we shall find that refreshing springs well up all along the highways and byways of learning.

Any one at all acquainted with children can verify the statement that they are naturally and powerfully interested in the best simple products of literature as "Robinson Crusoe," "Evangeline," "King of the Golden River," "Sohrab and Rustum," "Enoch Arden," "Ivanhoe," "Adam Bede," "Hypatia," "The Bible Narratives," "The Story of Ulysses," "Arabian Nights," "Gulliver's Travels," "Life of Franklin and Washington."

Irving, Kingsley, Hawthorne, Longfellow, Scott, Homer and Shakespeare produce the same kind and quality of interest in children that they do in adults. The living fountains of poetry

and song, of history and romance, of comedy and tragedy well up to please and inspire the minds and hearts of children.

A like experience will surprise any one who, forgetting the scientific order of text-books for a while, leads the young people out among the fields and forests where the sunshine works its daily miracles of growth. The interest felt by the trained and mature scientist in geology or botany is no more genuine and refreshing than that felt by the school child who begins with open-eyed astonishment to uncover the mysteries hid in nature.

Shall we say in reply to all this that it is no serious study, that it is simply the holiday side of life? When you find a child under the rapt influence, under the potent spell of Homer or Scott or Ruskin or some other of the great masters of thought and of idealism, will you be so *profane* as to say that he is simply amusing himself or so abominably practical as to suggest that he would better be memorizing a spelling lesson or a process in arithmetic? When children are found following such leaders of the world's best thought, we would better let them alone, silently give thanks or at most give utterance to a hearty *God speed*.

In calling attention to the two great fields of knowledge, history and literature on the one side and nature study on the other, we have only pointed out the two grand sources from which all true education must spring.

Not only children, but poets, historians, philosophers and scientists have found, in these two fields, the abounding sources of their interest and inspiration.

If we, as teachers, are able to awaken this kind of interest in school studies by a careful selection and treatment of topics, we shall be richly repaid by finding the following results:

First, a strong *attention* to school tasks, which is the indispensable basis of efficient work.

Second, an increased *intensity of mental effort* which secures the best mental discipline, and masters the school problems in the shortest time.

Third, the teacher is learning *how to suit the materials of instruction to the needs of the children*, a great help both in matters of discipline and of instruction.

Fourth, the lasting interest awakened in the children is the *best test* of the *whole spirit* resulting from the pursuit of a study. If, on the contrary, the mental attitude is that of unconcern and

indifference, the work is a failure. There may have been some discipline, some accumulation of knowledge, but the studies have taken no root in a child's own character and life. An abiding interest in a study is an awakener and a promoter of activity in important lines for the future.

THE COUNTRY SCHOOL AGAIN.

CARRIE LE VAUGH.

If I may have the space in the JOURNAL, I would like to reply to the article in the January issue in regard to "The Country School Problem." I am, also, a teacher in the country schools, yet I can not indorse the thought of the article.

The writer refers to an article in the September JOURNAL that he says "Pre-supposes that country teachers, as a class, know nothing." I have read the article mentioned very carefully, yet I fail to find in it that idea. As a whole, I can offer no objection to what was stated and have not seen that it casts the slightest reflection upon the educational qualifications of the country teacher.

Neither do I think that our county institutes are of so little value, or that there is so wide a divergence between the city and country teacher. It appears to me that our institute instructors are coming more and more in touch with the country teacher. I believe it is an acknowledged fact that, of the pupils who enter high school, those from the country schools often have the best ground-work.

In regard to the books read by the teachers, I think I may safely say that the works on method by Professor Tompkins and Professor McMurry are of the very best and I have been greatly aided in my work by the study of them. It has been my privilege to listen to both gentlemen in institute work, and the instruction I received was not only "so called" but was lasting and real. It was not only edifying but was practical.

It is true that we hear these things repeated many times, but are there not teachers in the ranks each year who need such instruction? The gospel of Jesus Christ, the great Teacher, has been preached to the world for 1800 years, yet there are those who will not hear. Does the Christian grow tired of hearing it,

but rather does he not find new beauty in the story each time it is told? I believe the work of the country teacher is appreciated. Our best educators have devoted their whole time to this work, and have given us their best thought. It is well that we read and compare these ideas, make them our own, and we shall be able to use them well.

I believe the country teacher is thought to know just as much as the city teacher. He has a better chance for child-study. He knows more of the home life and social environment of his pupils than does the city teacher. He is in closer touch with the parents, and can better gain their co-operation.

Will not the writer of September agree with me, that his thought was but to urge the teachers to a more careful study of child nature and closer attention to method?

Macy, Ind.

CHILD-STUDY DEPARTMENT.

ON OBSERVING CHILDREN.

SANFORD BELL.

III.

The method of observing children, exposed in the February number of the JOURNAL has two distinctive aspects; it is both inductive and deductive. By the examination of a great number of particular actions or events and looking through them to the mental life out of which they spring, the observer is able to make generalizations concerning, and formulate laws that govern the mental processes of the child. This process is analytic and inductive. The law is seen as growing out of the fact. By taking the generalization and returning to the facts the cycle is completed; the fact is seen in light of the law, the return influence of the fact upon the generalization, enriches the latter and when untrustworthy, corrects it. This process is synthetic and deductive. Perhaps of all the methods used by observers in the past, this one has been used most. The process in the method is all right. Its weakness lies in the fact that representative data have not always been chosen. It has never arisen entirely out of the realm of the anecdotal narration. Observers have too much

noticed unusual, pert, strange or curious things to the neglect of the common, therefore less noticeable things that really make up the greater part of the child's real life. These unusual and pert things are very valuable; very indicative, and are not to be underestimated, but it is no less true that they are not sufficiently representative to be the sole basis of our generalizations. In my endeavors to meet what has seemed to me the defects in this method, I have had recourse to what, for want of a better name, has been called the "Longitudinal-Section" method. It is not to take the place of the method just discussed (which in similar terminology might be called the "Cross Section" method), but is to supplement it.

The idea in this "Longitudinal Section" method is that a child shall be observed during thirty, forty, fifty, sixty or more minutes and a record made of every word uttered and every action done. The child is, of course, not to know that he is being observed. The record so made, will indicate the entire stream of thought so far as it has received objective expression during the time of the observation. Both the variety and the continuity of the child's mental process are obtained for a given length of time under certain environmental conditions. It is very important that these environmental conditions be carefully noted by the observer, for they constitute, in the main, the stimuli that are related to the mental phenomena being observed. The method naturally divides itself into a number of phases. I shall indicate the following:

1. *Many observations upon the same child* intended to extend over as long a period as possible, say a month, better a year, ideally a life-time. For such observations to be truly representative they must be taken at different times during the day. Although the child is always a child, he is not the same at morning, when he is vigorous from his night's rest as he is at noon-day, or at mid-afternoon or at night. He must also be observed under all the different kinds of environment. He is not the same at school, as at home, or on the street, or at church, etc. He is relatively a different boy in a different environment. A great many observations of this sort, made upon any one child would constitute invaluable data for the intensive study of that child. Collections of the same kind upon a great many children would be a store house richer than psychologists have yet had access to.

2. *Observations on many children of the same age.* This will give us data for an extensive study so far as the nature of the truth is concerned. It will reveal child life in general at two-years old, at three, at four, etc. These collections can be made at any time.

3. *Similar observations upon groups of children.* This is really a study of child life in a particular environment, but is worthy of special study on account of the sociological as well as the psychological and the pedagogical benefits derived from it. As remarked before, it is not our purpose to give the interpretation of data collected, but to expose the nature of the methods used in collecting such data. The following illustrations will exemplify the "Longitudinal Section" method:

1. Rose McG—, aged three years and three months, observed at home from 6:45 to 7:20 P. M., December 31, 1897.

When I went in, the first thing she said was: "Do you want to see my little basket?" When I sat down with paper and pencil she brought the basket to show me. It contained several pieces of candy, among them a pink piece. She said, "Blue candy," pointing to my pink dress and said, "Like your dress," looked at herself and added, "Like my apron." She noticed me writing and wanted paper and pencil. Having been given these, she climbed into a chair by the table and began scribbling, saying, "I can beat you writing." Writes. "I writing to Harvey (their old home) and May (her aunt there). I used to be a little baby. Were you a little baby?" I said, "Yes, a little baby once like brother" (whom I had on my arms). Rose—"We used to be a little baby when we were older and lived at Harvey, didn't we?" Continues writing. "Papa have to write in the basement" (his study is there). "Who are you writing to?" I—"I am writing a lesson for my teacher." Rose—"Who you teacher?" I—"Mr. B—, do you know him?" Mrs. McG—"Do you remember? Mr. B— was at Sunday school one day." Rose—"Yes, I saw him (to me), he your teacher?" "I write my teacher too. I have three teachers." I—"Who are they?" Rose—"Miss Webb (her teacher last year), Miss Weaver." I—"Miss S—?" Rose—"Yes, Miss S—, too." Had continued writing most of this time. Rose—"Do you know Santa Claus? He has pretty things on his back. I beat you writing. I need more paper." She had covered six sheets on both sides.

Fidgeted in her chair, kissed baby good night. "Buddy and Harry came to Christmas tree (last year) and Russell (writing) — 'I need more paper.' I am going to have candy on my Christmas tree and a dolly on top (that was the arrangement last year). I going to show all my little folks (meaning Bundy, aged six, Harry, seven or eight, and Russell)." Called for more paper, got down from the chair, sang awhile (no tune), lost her pencil, got under the table for it boomed at me, laughed at my pretended fright. Got up in chair again and wrote awhile, filled the paper, crawled under the table again and came at me bleating like a sheep and laughing at my fright; repeated this several times; crawled over the floor making the same sound. Her mamma called her "coltie" and she ran to her whinnying like a colt. Her mamma called her a fairy and asked her to speak a little piece. She climbed upon a chair—stood in it—and spoke, "What Baby Likes," quite plainly and with a good deal of expression. Began to speak, "The Pigeon Boy," and at the words, "Fly away, pigeon boy," she jumped down and ran to her mamma with arms outspread, as in flying. Mrs. McG—"Don't you want to finish it?" Rose—"I am pigeon boy." Climbed back in the chair and recited, "Good-night, Little Star," using appropriate gestures, some of which had been suggested to her and some were used of her own accord. At the words, "Good-night, little star," she drew back the curtain and looked for a star. Her mamma said she always wanted to make the gesture towards the stars which she could see through the window. After this she sat down in her chair and called for more paper. Wrote and kept remarking, "I am beating you." Her mamma wished to teach her a little poem but she insisted upon writing lest I should beat her. She went into the bed-room with her mamma and remarked to her, "Mamma, did I help Miss Reece by saying a piece to her?" She and her mamma have been trying to see how many people they can be kind to. Came back and began to write. Mrs. McG—excused herself and went into the parlor to practice upon the piano and Rose said, "That's my mamma and *she's a woman*," in a voice of mingled pride and love. Then she showed how her mamma played, fingering the table and running the octave perfectly with her voice, keeping time to her fingers. Then fingering rapidly with her right hand she made a high, chirping sound, and finished up with a low *dum, dum*, fingering with left hand to match the sound.

2. Russell D—, three years and four months old.

"Won't you take off your things?" "Won't you take off your coat?" "Won't you take off your hat?" "You must take it off." "Take it off." "Everybody is sick." He lay down upon the lounge and began to sing; he had a paper and pencil in his hand. A lady came into the room, and said she would stay and wait until recitation bell rang. Then he began to sing, "Ring, Ring, Merry Bells." He fell off the lounge and said he broke the point of his pencil. "That didn't hurt me, though." Then he got another pencil and scribbled on my paper. Then he asked me to take my other glove off. "Can you take your hands off?" "No, dear." "Try and take them off." Then he ran around and sang, "Miss S—, why do you write all day?" "Mr. B— wants me to." Then he brought me some paper and asked me to write his name close together. He stood watching me and said, "Oh! you did not write here," pointing to his paper. "You aren't tired writing, are you?" "I put my name here." "Oh! see what Jennie did," pointing to some writing. I tore off a sheet of my paper, and he said, "Don't tear it." He stood looking at my paper and said, "Oh! Jennie, why didn't you write close together?" Then he took a paper and pencil, and tried to draw a picture. He was busy drawing for a few seconds. "Oh! shall I draw that?" "Draw that, then." "My hair is like yours, Miss S—." "Isn't this pretty?" showing his drawing. Then he took up a book and asked to have a story told of each picture. "Tell me that," pointing to the next picture after he had turned a few leaves. He listened very intently. "Santa Claus might bring me a pair of skates to put on my tree, because we put it out in the yard so he could." He turned over a few more leaves and said, "Tell me that." "There is a moon, and here is a moon, just two." "There is one going to eat," pointing to the next picture, (deers drinking water). I said, "What is that?" "Oh, I guess it is cows; they are eating water; no, they are drinking water. I drink water and they drink water." "Guess I'll get my rocking chair. Missis S—, take your foot away." "Oh, you didn't tell me that—nor that—nor that," etc., pointing to each picture as he turned over the leaves. I asked, "What is the baby doing?" "Oh, I guess she is playing with her blocks." "Tell me that," three or four different pictures. "Oh, that

isn't pretty," to a picture representing the causes for the phases of the moon. "That isn't pretty," to another one. The next was a map, and selecting one of the smaller outlines, he said, "There is a little boy, but he hasn't any mouth." It did not resemble a little boy very much. The baby then picked up a paper as though she were going to strike her mamma and Russell said, "I wouldn't do that, would I, Mrs. S—?" The next was a picture of people in a boat, and he said, "Oh, they have all got their feet in, ain't they." The next few moments were spent in turning over leaves, and saying, "Oh, tell me that." Then there was a picture of Greenland, and men drawing a ship over the ice and he said, "Look at the boys." Then his mamma told him he had better talk to Miss S— and he said, "I ain't got time." The next was a picture of a halo, and he said, "That is pretty and round. Round like we have at the Kindergarten," and he drew a circle with his arm in the air. "Oh, tell me that, and that." The baby took hold of his book and he said, "Oh, that ain't pretty to do." Then he saw a picture of tall trees, and he said, "What can men do with such big trees?" He sat quietly for some moments, and putting his pencil over his ear, said, "I put mine in my ear but papa puts his in his pocket; once I had two pencils and I put one in each ear, when you get through writing then I will put that in my ear and then won't I look funny? Miss S—, you are a nice lady; let us all go in to supper." Then he wanted to take my pencil and I said, "Just as soon I am through." He said, after thinking a few moments, "The sky goes away up and the moon away down." He threw his pencil at me and struck my hand. "Oh, did I hurt you?" "No." "Give me your pencil." "In a little while but not now." "Oh! but you said you would, you did say you would." Then he began writing on my paper. "Oh, we are writing together, ain't we, Miss S—? I am going way, away for lots of weeks." I said, "Why, what will I do without my little boy down at K. G?" "Oh, just play and march." Then he called out as he noticed a small paper sack, "Popcorn, penny a sack?" He said this twice. "Teacher, am I clean?" Then he said something I could not understand. I asked him twice what it was and he said, "I can talk myself, I can talk myself." He said this about twelve times as fast as he could talk, and got his words mixed, then he said, "Oh, I am all

used up. Mamma, do you like Miss S—?" Then he built a train out of his blocks, and then he took a pencil and tried to shoot his auntie. Then he drew his chair up to mine and said, "I love you." Then he said to me as I was leaning forward, "Your waist is coming down. My waist is like yours. Oh, my shirt shows." His sleeve showed beneath his cuff and he tried to push it back. "Miss S—, let me push yours back. Oh, Miss S—, you haven't any on." Then he put back his head on my bosom and bit my chin. "You said you would give me your pencil. I thought you was coming all night." Then he threw down the rocker and said, "Rock the other way," and sang and laughed. He then said twice, "I can turn a somer-set." He did so. Then he stood on his head and was afraid to turn over. "I've got my new shoes on, have you?" "No." "Then you've got old ones on. Oh, see some one has been writing on my chair." He turned the chair over to see if the ink had gone through. His name was painted on the chair with a broad paint brush, in black. "Marion, come get your doll away, I am going to turn a somer-set, and I'll break it, and then you will cry. Miss S—, can you turn a somer-set?" Mrs. D— patted my shoulder and Russell said, "spank her." Then he turned a somer-set and said, "Oh, I hurt my head," and he started to look for some court-plaster. "I know it is going to hurt all night. I hurt my old nose that time," as he turned another. "Poor little dolly;" its dress was coming off. "Put its waist on, Miss S—, and then give it to Marion. I ain't silly." His Mamma had told him he was. "Mamma, can I go to Miss S—'s and have my picture taken? And I ain't coming back any more at all." Then he put his hand on the baby's chest and said, "I touched her stomach. That ain't big," looking at my writing. I just had a few lines on the top of the page. "I am going to rub that off. Marion, don't you rub that off. What makes my head so hard?" He felt his forehead. "I don't want it hard. Aunt Josie, my head is too hard. Feel, Miss S—." He felt my forehead and his mamma's and then his own and said, "They are all hard, but I don't want mine hard. Miss S—, come here and live with us. See, we have got a pretty house, and see all those?" pointing to the roses on the wall paper. "Won't you come?" They had a cloth-stuffed doll and it had begun to rip at the place where a man has pockets in his trousers. The baby was pulling the rags

out, and he said, "Naughty Marion, don't pull out Georgie's handkerchief. Who are you writing for, Mr. B—? I write lots for Mr. B—. I want to go to supper." He brought out some candy, giving me some, he said, "Is yours good?" Then he added, "You said that you would give me your pencil." Fifty minutes.

3. A GROUP STUDY.—Four little girls, three of them about six and one of four or five, were on their way to school. The walk was covered with ice, and a little down hill. One little girl said, "I can slide farther than any of you 'cause my rubber hain't got any teeth on the bottom." The other girls laughed and the tiny one said, "Rubbers don't have teeth, but my cat has—see where he bit me to-day." They gathered around in an interested group, and a little boy came running down the walk and slid right in amongst them. The girls all screamed—"You horrid boy! I'll tell my teacher on you. Let's wash his face!" Then they scampered a little ways after him but he was too fast for them and the three larger ones stopped and waited for the little one. One said, "O, here's a splendid slippery place, let's take hold of hands and slide!" They did, all together at first, but the sidewalk was so narrow they could not go that way and one said, "Let's just two of us go at a time." The little one and a larger one started first and at the end of the slide both fell down. They sat still and the other two tumbled down beside them, all screaming and laughing. As long as the slant to the sidewalk continued, they continued to slide and to fall at the end of their sliding. If one tried to stand, the others pulled her down. When they turned up hill, one said, "We can't slide here, let's take turns being pulled. We'll pull Mamie first, 'cause she is the littlest." They did, then one of the others tried it, but by this time the girls were tired and walked along quietly a little ways. I couldn't hear their talk except now and then—"She did!" "She didn't!" "She did, too!" which showed that they were evidently disputing about something. Then one said, "Let's run up hill!" They all started but the little one had to stop and one of the others said, "Why don't you run like we do?" The little one answered, "I can't!—the hill keeps coming up so high in front—I'm so tired, my feet won't go!" Just then the bell rang and two of the girls ran on while the other waited and took hold of the hand of the little one and they ran up the steps into the schoolhouse. Time, ten minutes.

This method is certainly one which can be used very easily by teachers and parents in making observations. Teachers can not easily make such during school hours, but can do so at other times. Like every other method it calls for time, and the ordinary school teacher can with justice say his time is much taken. I can not argue this question. I can only say that if the teacher or parent really wishes to study children, this is a good way of collecting the material for study. You may ask what will come of it, if you do make many such observations. Try it and see. Don't be too impatient about getting at results. We Americans don't let things soak long enough. We are too eager to count results. If you do no more than make and accurately record many such observations with sympathetic interest in the child you will find your knowledge of him increasing, and by the very nature of the mind's working this knowledge will gradually assume organic shape, the same as it would if you were recording observations about anything else. You will also have an abundance of actual, particular facts to refer to in giving "an account for the faith that is within you." As your ability to analyze and organize facts increases you have first hand material to deal with, which if handled properly, will lead from an empire to a scientific knowledge of child-life.

Valparaiso, Ind.

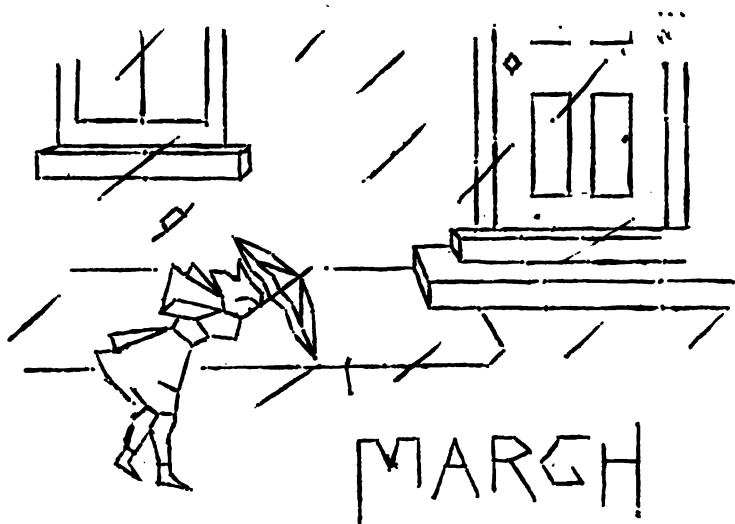
You never can tell when you send a word—
Like an arrow shot from a bow
By an archer blind—be it cruel or kind,
Just where it will chance to go.
It may pierce the breast of your dearest friend,
Tipped with its poison or balm ;
To a stranger's heart in life's great mart
It may carry its pain or its calm.

You never can tell what your thoughts will do
In bringing you hate or love ;
For thoughts are things, and their airy wings
Are swifter than carrier doves.
They follow the law of the universe—
Each thing must create its kind ;
And they speed o'er the track to bring you back
Whatever went out from your mind.

—Ella Wheeler Wilcox.

PRIMARY DEPARTMENT.

A SEWING CARD FOR MARCH.



(Sewing card by Miss LUCY HARING. Persons desiring these cards can secure them by addressing Miss HARING at Aurora, Ind.)

Previous to sewing the card we have a series of talks about the characteristics of the month. Then with the hectograph we soon have a copy of the card for each child. The children pierce the holes in the cards with a pin. I sew a card and place it where all can see it. During intermission I allow pupils to come to my desk where I have a quantity of yarn laid out in lengths of eighteen inches, and select the colors that were used on my own card. We always use split zephyr for which we pay 12½ cents a bundle. The colors for each month correspond to the colors of nature of that month, the green of March and April being less bright than the green of May and June. January is sewed in white and February in dark brown, the color of the earth when saturated with the melting snow. I have in my class a body of pupils whom I call helpers. They are the bright children who, when they have finished their own work go about helping those less gifted by threading needles when a change of color is necessary and knotting the zephyr and fastening the threads at the close of the sewing. A certain portion is assigned for each lesson,

thus keeping the class together. Some teachers who have two or three classes in a room give sewing to one class while the other class recites. If the children can be so trained as to help each other thread and knot it is an excellent lesson in unselfishness. When the cards are completed, the children take them home, and when they have sewed all the months, the cards are tied together with zephyr or ribbon.

JENNIE DOWNTON.

Aurora, Ind.

WHAT THE BUDS CAN TELL US.

A. R. NORTHROP.

The tide of the year is rising, and although we dull observers may not have noticed it, the buds know it and are growing restive in their brown winter coats. Whenever a warm day comes, we may be sure they are making silent preparations for the happy time when they will spread their green leaves in the glad spring sunshine. Now, when the outside world seems dreary and desolate, is the best season to call the attention of the little ones to the wonderful process of growth, to that emerging of life out of seeming death which makes every spring a miracle.

You can show to the child wonders as great as his fairy stories tell of, and the only talisman you will need is a bunch of twigs from the woods or garden and a pair of sharp eyes to see them with. Is it not as marvelous to watch a whole branch with its leaves and flowers grow out of the tiny brown bud in which it was packed away last summer, as it is to hear of the hundred yards of fairy linen that would go into a hazel nut, or the dog so tiny it could live in a walnut shell? The "fairyland of science" is full of marvels, and we firmly believe that every child should be led, at least a little way, into this wonderful region. But we digress, and must return to our text which is—buds.

Get a bunch of twigs, then, and put them in a jar of water, preferably in some warm place. They will need no further care beyond occasionally filling up the jar as the water evaporates. It will not be long before you will detect a change in the buds. Buckeyes that we gathered about ten days ago show green leaves peeping out already. Among the buds that will develop the most readily, and be the most interesting to watch, are the Buckeye with its large brown varnished buds; the Tulip

tree, with the flattened purplish ones ; the Black Briar, with its shining brown bark and slender pointed buds ; the Willow, the Maple, the little gray dove shaped flower-buds of the Dogwood, and the Elm. The Alder will shower the golden pollen from its tassels in a week or two, and the little gray pussies of the " Pussy-Willow " will come out from under the brown scales where they are hiding. If you cannot get to the woods for your branches, the garden can supply you with Lilacs, Forsythia, the Bush Honey-suckle, the Japan Quince or the Rose. In many of those that I have mentioned, if you have a twig with flower-buds, you will have flowers first, and later the leaves. Cherry and peach branches can often be " forced " in this way to produce flowers almost as large as they would be on the tree three months later.

Let me point out just a few of the things that your branches will reveal, to sharp eyes. The Buckeye is an excellent one to begin with, because the buds are so large. On a close examination, you will find that your twig can not only tell you what it is going to be, but much of its past history also. Observe the large leaf-scars under the buds ; they tell you that its last summer's leaves grew in pairs ; and that each pair was exactly at right angles with the pair above and below it. The row of little dots on the leaf-scar will be a guide to the number of leaflets the leaf had, usually either five or seven ; then, if your twig is large and you look carefully, you will see, some distance down the stem, the row of rings left along the scales of last spring's leaf-bud, and so you can tell how much growth was made during last summer. Compare the arrangement of the buds in the Buckeye with those of some other twigs—the Birch, for instance. Observe how many buds you will have to pass in the latter before you will find one exactly over the one with which you started. It will greatly interest the child to see with his own eyes that leaves do not come out anywhere, but according to rule, each in its own appointed place.

The buds themselves will tell much as they open. Watch the scales, and in some trees you will see that they dry up and fall off, in others change into leaf-like scales, while in still others they become regular leaves. Some baby leaves wear waterproof coats, others are daintily tucked away in down blankets ; all are most exquisitely folded in their tiny quarters. Each family, you will find, too, has its own peculiar way of packing the baby leaves in

their cradles for their long winter nap. If you watch the leaves and flowers unfold from day to day, you will learn much more than I have told you here, and your winter bouquet will become a source of the greatest interest and pleasure.

Having discovered all that your twigs have to tell you of their past history, as shown by the leaf-scars, and by the rings left by the buds of former years, carefully watch the new leaves as they emerge from the protecting scales, and note the way in which they have been packed away. This is technically known as vernalation, or *præfoliation*. The most common method is a simple folding together of the two halves of the blade along the midrib, as in the Oak, Hazel, Magnolia, and the leaflets of the Buckeye. In the Tulip tree, you will find this folding at the midrib, and, in addition, the upper half of the leaf is bent down over the lower. Was ever more exquisite packing than this? As the leaves developed, watch how the scales of the bud become the stipules at the base of the full-grown leaf. This is one of the numberless examples of Dame Nature's economy; she never makes new things when those she has can be modified to serve the purpose. A useful ethical lesson lies hidden away in the Tulip tree buds, you see.

If you have Apple, Pear, Sycamore or Honeysuckle buds, you will find the halves of the blade not folded together, but rolled in to the midrib, or central vein of the leaf, while in the Cherry, the blade is rolled up from one margin. You will find that still other leaves have been packed away like little closed fans, as the Maple and Currant, and, in a way, the Birch and Alder, too. Perhaps, however, the prettiest of all the modes of vernalation is the *circinate*, which is found in baby ferns—these are coiled up from the apex downward, and look like shepherds' crooks.

If you have very large buds, as those of the Buckeye, Hickory or Magnolia, dissect one before it opens, that you may see the leaves in their winter quarters. As the new branch develops, have the children decide where growth takes place first—at the top, or at the base. Then, when the leaves are fully extended, turn their attention to the shape, the margin, the veining, the apex and base, and lead them to classify the different leaves according to similarity in shape or in veining.

If you have Alder, Hazel, Willow or Birch twigs, you will be likely to have some of the flower catkins, and can then study the

flowers before the leaves develop. In the Alder, Hazel and Birch, the long, drooping catkins are the staminate ones, while the pistillate are much smaller and are erect. You can tell the staminate by the yellow powder (pollen) which falls from the numerous stamens. When that has all been shed, the work of the staminate catkins is over, and they dry up and fall off, while the pistillate continue growing until they become fully developed fruit. You may know the Alder by its cluster of reddish-brown staminate catkins, and just above them, on the same branch, the three or four short pistillate ones. When the latter are mature, you can see what look like short crimson hairs all over them; these are the ends of the pistils (styles and stigmas). The staminate catkins of the Hazel are yellowish, and commonly grow singly, close to the stem. The pistillate are like small, scaly buds, showing the long crimson recurved stigmas, and look very unlike the hazel nuts they will become next fall.

If you have Willow twigs, when the catkins or "pussies" develop, you will find either little yellow stamens coming out from the gray "fur," or tiny green threads (styles and stigmas), showing that the catkins are pistillate. You will never find both on the same branch however, as in the Alder, Birch and Hazel, nor on the same tree. In the Willow and Poplar, one tree will bear nothing but stamens, another nothing but pistils. They are like the people in a quaker meeting-house—all the women on one side, all the men on the other.

If your children are old enough, it will be interesting to dwell on the fertilization of these early flowers—how, in almost all cases, the pollen is scattered by the wind. Lead them to see what an advantage it is to a wind-fertilized plant to have its flowers in long, pendulous catkins, and to have them develop before the leaves; to notice, also, that they are dull and inconspicuous, as there are no insects early in the season, to be attracted by bright colors.

When the leaves have ceased growing and there is nothing more to look for, have the children cut cross sections of the stems and notice the structure. Most of them will show the pith, wood and bark in varying proportions; the Sumach, for instance, having the pith very largely developed. The children will be interested, too, in the rootlets that twigs often develop in the water. The willow will be sure to develop rootlets. The rapidity with

which these trees send out roots makes them of value for planting on embankments where it is necessary to hold the shifting sand in place.

Why cannot every teacher have a bunch of twigs in her schoolroom? It would be such a welcome touch of life and Nature in what is so often only four bare and uninteresting walls. The buds would thrive, too, where potted plants and aquaria would fail. Even though the teacher may not be able to give much time to talking of the buds, they will teach their own lessons, in part, at least. Let us hope the day will soon come when abundance of time will be set apart for just such work as we have outlined—when, if the work is buds and stems, each child will have a twig of its own to water, to talk about, to draw, to write about. The study of Nature is far from obtaining the importance in our school curriculum that it deserves. What little is done in this direction is often nullified by the lack of proper specimens; better not teach Nature at all than to teach it from books alone. In many cases it is true that specimens are very difficult to obtain; but with a little effort, cannot everyone get buds to study? Try it, and see if they will not repay you a hundredfold for your trouble.

Why cannot every class room have a "spring notebook," in which the development of the buds can be noted from day to day? This would lead to accuracy and to more consecutive work; while it might be illustrated by drawings of the bud in its various stages of growth. The interest of the children can be still further stimulated by reading to them about "buds" and the springtime. There are several delightful pages on this subject in John Burroughs's book, "A Year in the Fields." Where could one get a more graphic or charming description of the spring than in Lowell's "Sunthin' in the Pastoral Line"? After watching Willow and Buckeye buds develop, what child will not appreciate this, for instance:

"Then saffern swarms swing off from all the willers,
So plump they look like yaller caterpillars;
Then gray hoss-ches'nuts' leetle hands unfold,
Softer'n a baby's be at three days old."

—*The Alumnae News.*

"In the dark silence of her chamber low,
March works out sweeter things than mortals know."

LEND A HAND.

(This department is conducted by Mrs. E. E. Olcott.)

*"Look up and not down,
Look forward and not back,
Look out and not in;
Lend a hand."*

AMENDED SPELLING.

More than a year ago the Superintendents' Department of the N. E. A. met at Indianapolis. The committee appointed to decide upon what changes should be made in the interest of spelling reform, consisted of Dr. W. T. Harris, National Commissioner of Education; Superintendent Soldan, of St. Louis, and Superintendent Balliet, of Springfield, Mass. They recommended the following forms:

| | | | |
|---------|---------|---------|-----------|
| program | catalog | demagog | altho |
| thru | prolog | pedagog | thoro |
| thruout | decalog | tho | thorofare |

There are just a dozen words, but it is safe to add thoroly, thoroness and to cut off the "ue" from all the "logues" and "gogues" and so swell the number somewhat.

It would be interesting to know what per cent. of the teachers of Indiana have used and taught these amended spellings during the past twelve months. It is not merely availing oneself of a privilege, but it is urged upon us as a duty. It is "lending a hand" to lighten the burdens of posterity. An eminent writer says that it is chiefly prejudice and cowardice that stand in the way of changing forms which none care to defend. It does take a bit of courage to write "thru," for instance, in a letter to a slight acquaintance; the thought will intrude, "possibly this person may think I have *forgotten* how to spell through!" If one could only add a postscript saying, "If you do not know that "thru" and "tho" are the latest forms, you are not up-to-date!" Then in teaching pupils the amended forms, inquiring patrons may descend upon the brave teacher and demand: "Why this thusness? *We* did not spell the words that way. Our abridged dictionaries, spelling books, and newspapers do not deprive demagogue and pedagogue of the final "ue!" There-upon the teacher should rise to the occasion and proclaim: "Both

demagog and pedagog are being reformed for the sake of succeeding generations!"

Since good weapons often give courage to the timid and make the brave invincible, let us arm ourselves with arguments, let us be ready to overpower objectors by quoting the opinions of those who sit in high places in the land. First there is Dr. Harris, his is a name to conjure with! Then we may add William Dean Howells, Edward Eggleston, Brander Matthews, Andrew D. White, William R. Harper, Francis A. March, William Hayes Ward, Charles P. G. Scott and Thomas R. Lounsbury, whose names are on the list of vice-presidents of the Orthographic Union.

The Orthographic Union and the Spelling-Reform Association are both waging war on difficult and objectionable spellings.

Professor Lounsbury says, "There is certainly nothing more contemptible than our present spelling unless it be the reasons usually given for clinging to it."

A writer in *The Forum* says that this spelling is opposed to utility and common sense; that it is easily shown to be a serious obstruction to education and civilization, "wasting and worse than wasting the time of our children in the schools, needlessly increasing the cost of all printed matter, and doing more than all other agencies combined to hinder the spread of English as the language of the commercial world by making most difficult its acquisition by the foreigner."

We may quote the *Century Dictionary*. In the preface to its list of amended spellings we find: * * * "the objections brought on etymological and literary and other grounds against the correction of English spelling are the unthinking expressions of ignorance and prejudice."

Speaking of prejudice, Prof. F. C. Chamberlin, of Chicago University, in a recent article says: "In the bondage of prejudice lies the root of the whole matter, as I see it. China could quickly be civilized if it were not for its inherited prejudices. We could quickly right the obvious faults of our language if we were purged of our bias. * * * There is nothing more manifestly erroneous than to spell "of" with an "f," but who of us can see it in its proper dress "ov" without a wince of his "educated" sensibilities? Are we not, without exception, the victims of an inculcated bias? And what is worse, are we not heartlessly compelling our children to pass through the fire before

this moloch of prejudice and reducing them to like servitude? The condition of the language, bad as it is, is more tolerable than our moral attitude toward it. If one were called upon to name the most declared servitude to-day, he might safely name our bondage to our irrational spelling, our uncouth words and our antiquated syntax. But this bias has been so thoroly drilled into us that there is little or no hope of escape for the present generation."

If our spelling is so indefensible, and such eminent authorities urge changes, why does reform progress so slowly? Well, why haven't *you* used the twelve amended spellings suggested by the Superintendents' Department a year ago? Is it because we are bond slaves to habit?

A writer in *The Forum* suggests that the great obstacle is *inertia* or laziness! The present generation toiled to learn the existing spelling long ago, it is practically instinctive to them now, and the thought of unlearning it is so unpleasant that they say: "Let the movement be carried out by the younger generation for whom it will not be so difficult."

What shall we do? Professor Chamberlin advises that we stop educating the children into servile prejudice, and try to prepare them to accept reform when the time for reform shall be ripe. We should tell them that custom and prejudice require certain forms now, but that just as plough has given way to plow, so *of*, *tongue* and other words may retire before "ov," "tung" and other simpler spellings, by and by. Train up the children to be eager to adopt amendments. Let us not feel impatient with the children who miss words but with the language which adheres to such forms.

The Forum summed up the matter with: "There is a feeling that the success of the movement depends upon getting a very large number of people to agree to make a small beginning."

Those twelve amended forms are such a beginning. Is it not our duty to lend a hand to the leaders and help "insert the thin edge of the wedge into the gnarled block of habit?"

A NUMBER GAME.

"Yes, there must be more drill on the 6's to-day."

As Miss E— faced this fact there came to her mind the mem-

ory of yesterday's lesson—an unpleasant memory. Clearly she saw a line of urchins trying to make existence endurable while the monotonous hum of "6 times 1 are 6, 6 times 2 are 12," and so on, continued until "6 times 11 are 66, 6 times 12 are 72," came from the lips of the last child in the row—the twenty-first! Diversions were sought and obtained by the irrepressible ones, while many wore, oh such an apathetic look! From this depressing picture, Miss E— turned, yearning for an inspiration which would avert a repetition of that scene.

Suddenly her eyes fell upon the large blue squares showing in white great figures that were plainly visible from all parts of the room. These, pairs of willing little hands had cut from an immense calendar—whose day of usefulness was past—and had mounted for other number exercises. To-day, as her eyes rested upon them, they seemed to say: "Behold the inspiration!"

Miss E— selected the cards—the numbers from 1 to 12; she then called upon Maxie, the class mathematician, to tell the product of 6 times any number held before her. If she failed to answer instantly, Maxie must give place to another. If she succeeded in calling all the products, she was permitted to hold the cards before the eyes of any class-mate she chose. All were eager to answer so as to hold the cards before others; and it was surprising how quickly the products were given, and how pleasantly the time passed. Two pupils carried on this work while the others were attentive listeners.

Next day, *three* pupils at a time stood before the class. One held the cards, the second gave the products, and the third, whose eyes were lightly blindfolded, told the number that had been held up. Thus, the first child held up a card bearing the number 7, at once the second answered "42," while the third (who was blindfolded) instantly announced "7"—the number held by the first. This she was able to do for she understood that the multiplier in this exercise was 6, and by having the product called, she gave, without a moment's hesitation, the multiplicand.

Thus, both multiplication and division were involved and the relation of the number clearly seen. It was only a number game but it changed apathy to intent and brought from the children the smiling request: "Let's play it again."

EVELYN CONNER.

Charlestown, Ind.

DESK WORK.

MULTIPLICATION AND DIVISION.

1. What are the multiplicands in the following products :
36, 12, 24, 18, 6, 30, if 6 is the multiplier ?
2. If 3 is the multiplier ?
3. What number is the multiplier in the following products :
16, 32, 24, 48, 8, 40.
4. What other number could be the multiplier ?

PRIMARY LANGUAGE.

The table is made of _____.
My mother has a _____ thimble.
Bottles are made of _____.
The milk is in a _____ pan.
The pears are on a _____ plate.
A cent is made of _____.
Needles are made of _____.
My father has a _____ watch.
Windows are made of _____.
My pencil is made of _____ and _____.
My cousin has a _____ chain.
Horseshoes are made of _____.
My teacher has a _____ bell.
Potatoes are boiled in an _____ kettle.
The schoolhouse steps are made of _____.
Marbles are made of _____.
I have a _____ vase.
The knife blade is made of _____.

—By L. F. A. in *American Primary Teacher*.

“ Like a frolicsome lion, March comes with a roar
And stirs up the weather as never before ;
But the days of old Winter are passing away ;
His breath comes feeble ; he stops in his play.
The brooklets are melting, the winds cease to blow,
And the trailing arbutus peeps out from the snow.
While far in the distance the bobolinks sing,
'Tis the Winter's goodbye and the greeting of Spring.”

THE SCHOOL-ROOM.

ELEMENTARY ASTRONOMY.

JOHN A. MILLER.

Children are natural astronomers. Their interest in the starry heavens is early awakened and when once stirred is intense. Their questions are eager, frequent and generally intelligent. They ask the same questions that the scientific astronomer does. "How far away are the stars?" "Why are some brighter than others?" "Why do their colors differ?" etc. They soon group them and name the groups and with a little direction their groups coincide with those of the ancients. In a little while they note the apparent shift of their positions in the sky and attempt to account for it by ingenious and original theories, some of which are not entirely wrong. This is their first observation of the rotation of the earth on its axis. They early note that most stars remain fixed with regard to each other, that is, that the dipper always remains a dipper, but a boy that discovers that certain stars do not always have the same relative position with regard to its fellows (*i. e.* discovers a planet) is a careful and persistent observer.

The sky of this month is peculiarly well suited for amateur study. No other season of the year can boast of such a rich and varied star-bedecked canopy as March in the early evening. Its sky contains almost half the first magnitude stars of the universe; the brightest star, Sirius, in the heavens; the most beautiful constellation visible to the inhabitants of the northern hemisphere; the most famed star cluster; most studied nebula, and one of the most remarkable variable stars in the heavens. The brightest stars vary in color from the rosy red of Aldebaran in the Bull through the rich orange of Betelgeuze to the bluish white of Rigel or pearly luster of Capella. Many of the brightest stars are arranged in strikingly regular geometrical configurations. Venus passed the sun on February 15 and is now an evening star. An observer will see the planet just after dark each evening a little higher up in the sky than on the preceding evening. He will watch it as it constantly grows brighter (for it is coming

nearer the earth) and shifts its position among the other stars in the sky.

The accompanying chart exhibits the outlines of the constellations near the meridian on March 1st at seven o'clock. Only the brighter stars are marked. Those marked * are of the first magnitude.



On the meridian, about half way between the zenith and the horizon is the most interesting constellation visible to observers in our latitude. I refer to Orion. It is not hard to recognize, there being four stars that form a quadrangle, with several dimmer stars near its center. Orion was a mighty hunter, and out of the stars of this group are fashioned his club, shield, belt and sword. His belt is composed of three stars in a line near the quadrangle; while, dangling below these is a line of faint stars

which form his sword. The triangle of very faint stars above the stars marked (a), (c), forms his head, while the row of faint stars to the right of (c) is his shield with which he is warding off the attack of the bull whose eye is the rose-red star just preceding the shield.

The regular arrangement of the stars of this constellation at once attracts the observer, but the chief interest does not lie in its configuration and bright stars, for Orion contains almost every variety of celestial phenomena. It is interesting to note that the star marked (a), whose name is *Betelgeuze*, is sometimes brighter than the star marked (b), whose name is *Rigel*, and sometimes dimmer. Astronomers have ascertained that Betelgeuze is *variable*. It has also been found that Betelgeuze is much older than Rigel—in fact, Betelgeuze is a dying *sun*, while Rigel is comparatively young. The rich orange hue of Betelgeuze contrasts strikingly with the bluish white splendor of Rigel.

Surrounding the middle star of the sword is a vast area of glowing gas, called a nebula, perhaps the most famous nebula of the heavens. Astronomers tell us that this nebula will become suns like ours in some future time, perhaps long after Rigel dims with age and Betelgeuze is a cold dark body.

If you have an opera glass near you, press it into service. With it can be seen the nebula, and myriads of stars which, to the naked eye have been invisible, are arranged in clusters, star streams and irregular lines. The contrast of color, too, becomes more striking. But more wonderful, a number of stars which to the naked eye appeared single, are now seen to be double and even triple. These double stars form systems revolving around each other much the same way as the moon revolves around the earth.

If the boy be told this he will discover for himself the difference in color between Rigel and Sirius which lies below Orion and not very much out of line with the stars that forms Orion's belt. If he have an opera glass, he will trace star stream after star stream in the region near the seven sisters. From what has been told him concerning the comparative age of Betelgeuze and Rigel, he will conjecture that one of the "twins" (Gemini) is much older than the other. He may even discover the very great variation in light given off at different times by the star marked (b) in Persius.

A SUGGESTIVE EXERCISE IN ARITHMETIC.

W. F. L. SANDERS.

Generally, at the beginning of a new subject, an inductive introductory lesson should be given—a lesson in which, as far as possible, the stock of ideas already possessed by the pupil will be used. To illustrate, suppose the class has arrived at the subject of Commission. The teacher may begin the work by giving to the class certain items similar to the following:—

A farmer rents a store-room in town in which to put his wheat, and then employs a man to sell it. The farmer agrees to pay him \$2 out of every \$100 taken in for wheat sold.

The hired man sells 400 bu. at 75 cts. per bushel; 800 bu. at 70 cts. per bushel; and 1000 bu. at 65 cts. per bushel.

The pupils' work at this point should appear about as follows:

$$\begin{array}{r} 400 \text{ bu. @ } 75 \text{ cts.} = \$300 \\ 800 \text{ bu. @ } 70 \text{ cts.} = \$560 \\ 1000 \text{ bu. @ } 65 \text{ cts.} = \$650 \end{array}$$

Total, \$1510

These results are severally brought out by questions from the teacher. He then asks the question—How much according to the agreement, should the hired man receive, as his pay?

Under the teacher's guidance, the hired man's pay may be, at this point, found as follows:—(The pupils write.)

If for every \$100 the hired man gets \$2, for fifteen hundred dollars he will get 15 times \$2 = \$30; and for \$10 he will get 1 of \$2 = \$.20; \$30 + \$.20 = \$30.20, the hired man's pay.

The teacher now may state that the farmer paid \$15 for rent, and that the hired man during his service paid out \$7 for drayage; and he may ask for the total expenses—the hired man's pay, the rent and the drayage. The pupils now put down:—

$$\begin{array}{r} \text{The hired man's pay} = \$30.20 \\ \text{The rent} = \$15.00 \\ \text{The drayage} = \$7.00 \end{array}$$

Total expenses = \$52.20

The teacher now asks—When these expenses are paid out, of the whole amount taken in, how much is left? The pupils now put down:—

Total receipts = \$1510.00

Total expenses = \$ 52.20

Remainder = \$1457.80

Here, the teacher may state that transactions similar to those he has mentioned are frequent in several different kinds of business, and that the different persons and items concerned have special names; and he asks the pupils to write, on the left side of the slate or paper, as he writes or dictates, the following:—(See first column.)

| Persons and Items. | Their Business Names. |
|-------------------------------|--------------------------------|
| The farmer..... | employer, principal. |
| The hired man..... | agent, commission merchant. |
| What he sold..... | goods, produce, property. |
| The money taken in..... | gross proceeds, amt. of sales. |
| The hired man's pay..... | commission. |
| His pay + rent + drayage..... | expenses. |
| The money cleared..... | net proceeds. |
| The \$2 on the \$100..... | rate of commission. |

The names in the second column are now written down, in order, as fast as they are given by the teacher, or by the pupils, who may in some way have learned some of them. The teacher should get as many as possible from the pupils; the remainder he may tell. The pupils may write as follows:—

In the problem given,

The gross proceeds = \$1510

The rate of commission = 2%

The commission = \$30.20

The expenses = \$52.20

The net proceeds = \$1457.80

Let the teacher and pupils now construct a wording of the problem, in which the special business names will be used. It may be somewhat similar to the following:—

An agent sells wheat for his employer, on 2% commission, as follows:—400 bu. at 75 cts. per bushel; 800 bu. at 70 cts. per bushel; 1000 bu. at 65 cts. per bu. The rent is \$15, and the drayage is \$7. Find the net proceeds.

The following examples, embodying the same items, should next be worked out:—

An agent sells wheat for his employer, as follows:—400 bu.

at 75 cts. per bushel ; 800 bu. at 70 cts. per bushel ; 1000 bu. at 65 cts. per bushel. The rent, \$15 ; the drayage is \$7, and the agent's commission is \$30.20. Find the rate of commission.

[NOTE.—Here, it will be discovered that the items of rent and drayage are not necessary in solving the example. Let the pupils re-word it, and omit them.]

An agent at, 2% commission, earned \$30.20 by selling wheat. What amount did he sell?

The ideas embodied in the subject being now thoroughly understood, it will be in order to work out the definitions.

Connersville.

EDITORIAL.

O March that blusters and March that blows
 What color under your footsteps glows !
 Beauty you summon from winter snows
 And you are the pathway that leads to the rose."

—*Celia Thaxter.*

WASHINGTON'S BIRTHDAY.

Perhaps never since America was a nation, was the celebration of February 22d, so general as this present year. Through picture, song and speech, did teachers strive to instil in the minds of their pupils lessons of patriotism and love of country. In School No. 10, in Indianapolis, under the care of Miss Henrietta Colgan, a chorus of several hundred children's voices rendered in a most delightful manner the patriotic airs of our country. The children had been carefully drilled by Miss Wilkinson, the music teacher, and the result was a delight to parent and patrons.

At Plymouth Church, Miss Charity Dye, teacher of literature in the high school, delivered a lecture to the children on "*The Nations Two Idols*," in which she made forcible the leading traits of "Washington and Lincoln, the founder and preserver of our Union." Speaking of their education, Miss Dye said :

"They were educated along the same general lines. Carlyle said it was more important that a university go through a man than that he go through the university. What stands for the university curriculum of Washington and Lincoln was unique. Their studies were living subjects and their teachers were, for the most part, experiences. For mathematics they had surveying to do—for astronomy the actual heavens to study—for science they watched the forces of nature in the roll of the seasons. Ethics they learned through contact with man and the doing of daily duties. Their gymnasium was farm life. Their books of travel were trips to Lake Erie in winter, through wild forests, over ice and snow, and down the Mississippi river in

a flatboat. Their histories were live issues, in which they acted the manly part. They were makers of history. Their literature teachers, especially in the case of Lincoln, were the Hebrew prophets and Shakespeare, who taught them from King James's translation of the Bible, which is one of the tap roots of civilization, and from Shakespeare's dramas which represent the flowering of early modern literary culture. They were educated at the source of things. Both Washington and Lincoln were deeply religious.

"They were both men of deep convictions and sincerity, and each early in life got a very good word fixed so thoroughly to his name that to-day a truthful man is a Washington and an honest man a Lincoln. Whether the stories illustrating these facts ever come to be myths or not, they are true to these characters and to the truth of the stories.

WHAT THE FACES TYPIFY.

"Each face as we look upon it typifies its own time and section. Washington stands forth as the grand central figure of a group of men, such as have rarely been seen living together in the same time. Behind Lincoln's furrowed face we see the rank and file of the American people. Lincoln seemed always to have been of the people and for the people. Washington kept up his communication with England, lived on his landed estate, rode in a coach drawn by four horses, wore a wig, sat under a canopy at church, and brooked no familiarity. The calm serenity that you see in his face was a part of his life and station. Lincoln, on the other hand, was the true type of democracy. He was of our soil, born of poverty. He had no landed estate; he was a plain man in every respect. Any one could approach him. The presidency, the society at the capital, the honors of state, none of these things ever made him other than 'Honest Abe' to his early companions in pioneer life.

"Washington and Lincoln were both civic and military leaders. While Washington's signal service was military and Lincoln's civic, yet Washington proved himself a statesman of the first stamp, and Lincoln's service in the Black Hawk war and in his intimate knowledge of generalship and his advice to the officers in the civil war proved him to be capable of commanding any campaign. These men were vastly different in many ways. Washington carried weight by his grand presence. He was a silent man, but there was in his port, says Emerson, the sense of victories and great days behind him. Lincoln had the gift of speech. He could tell a story well, was strong in debate, convincing in argument, wise in council. Washington always took the serious view of life. Lincoln was a man of a deep sense of humor that often saved him from despair when the burdens of a nation bore so heavily upon him. Lowell has referred to Lincoln's humor in speaking of his

"Supple-tempered will,
That bent like perfect steel to spring again and thrust.'"

THE STATE vs. NON-STATE COLLEGE CONTROVERSY.

The controversy which arose during the last legislature between the State and the non-State colleges has recently broken out afresh. THE

JOURNAL has regretted this controversy from the beginning and urged compromise. Contention can but result in harm to the cause of education at large and to the State colleges in particular, as their support must come from the public. With the educational forces divided no school legislation of importance can be secured, but united any reasonable legislation can be effected.

Recently, at least two county political conventions have discussed resolutions on the subject, and numerous newspaper articles have appeared. The non-State college men insist that their position and the real issues are being misrepresented and misunderstood. To let them speak for themselves, the following is clipped from a communication to the *Indianapolis Journal* from President Butler, of Butler University:

"As to the present question, the non-State college presidents, as represented in their association, are and always have been earnest friends of the State educational institutions and favor liberal appropriations for their maintenance. We of the non-State college association are not to any great extent financially interested in taxes; we are not constitutional lawyers; we are only friends of education, and as such, we are convinced that the interests of education can in no way better be furthered in our State than by liberal public support and wise administration of its higher educational institutions. As to 'ecclesiastical domination' that is the mouthing of a demagogue. We seek no church control. How could we obtain it? We are intelligent and patriotic citizens. We are Americans; we both understand and love the spirit of American liberty. We neither ask, nor would we accept, State aid for our institutions; we neither ask nor would we accept, representation of our institutions on the State Board of Education.

"This is all we want and all we have ever asked for: *First*, reorganization of the State Board of Education. We claim that this board, as at present constituted, is simply a triumvirate of the heads of the State institutions, self-supervising and hostile to the interests of our institutions and of our students. The fact that other methods of organization are in actual working elsewhere, without friction or detriment to any institution, public or private, is evidence that what we desire is reasonable. We ask that the law governing the organization of the State Board of Education be so amended as to no longer include among its ex-officio membership the heads of the three State educational institutions.

"*Second*, a change in the law regulating life license for teachers so that such license may be granted to only such graduates of the State Normal as shall be graduated as well as from some reputable college. We hold that it is unwise and unfair to grant life license to teach, without examination, to one who may have completed what is little, if any, better than a meager college preparatory course, and at the same time require examination of a college graduate.

"These two points embody our whole contention."

TEACHERS who are interested in Miss Haring's sewing cards, one of which may be found at the head of the Primary Department of this number

of THE JOURNAL, can obtain the same by addressing Miss Lucy Haring, Aurora, Ind.

A NEW DEPARTURE.—The trustees of the State Normal have under consideration "making the summer school a part of the Normal course" and charging no tuition fees. While not yet fully decided there is every prospect that such an arrangement will be inaugurated this coming summer.

INDIANA UNIVERSITY.—The attendance for the fall and winter terms at Indiana University is the largest in the history of the institution. During the last twelve months every county in the State has been represented, and the total attendance for the year will exceed one thousand. The announcements for the spring and summer terms are now in press and will be sent to any one on application to President Swain.

BOOK EVALUATIONS.

CONDUCTED BY CHARITY DYE.

(Communications addressed to 1122 Broadway, Indianapolis.)

This number emphasizes Biography to which belong Letters, Journals, and Memoirs. While Biography may not at present be read as much as Fiction and other forms of prose, yet there are some reasons why it pleases many pupils. First, it is personal and pupils are in the personal stage of development. Second, it is true and the sense for reality is a strong factor in some young minds; it affords bases for varied interests. If one be an artist or a musician he can get inspiration from the lives of persons and masters of like tastes. For the mind of scientific bent there are the letters of Asa Gray and Agassiz and the Life of Darwin. Our own country is especially rich in Biography. There are Noah Brooks's life of Lincoln and the lives of Washington, Hamilton, Franklin, Louisa M. Alcott and Lucy Larcom. The letters of Abigail Adams form an invaluable contribution to the domestic history of Revolutionary times. The letters of Lowell are as interesting to boys and girls from fourteen years upward as any books can be; they furnish wit, wisdom, information and good literature. The letters in Vol. 1, pp. 90, 162 ought to be in every school reader. Indeed the worth of biography cannot be measured.

It is with pleasure that the evaluation of Franklin's autobiography is included in this number of the JOURNAL. One naturally turns to Franklin in the wake of the birthday celebrations of Washington and Lincoln. This little book should be a part of the mental equipment of every American youth. It is called the "best autobiography in the language" and was written in the maturity of the author's thought. Franklin is said to be "his own Boswell." He, like Washington and Lincoln, was self-made. No American has been great in so many ways. He was a leader in science, literature, invention and statecraft. He signed all the great historical documents of his time and was one of our noblest representatives at foreign courts.

Author, *Benjamin Franklin*. Imprint, *Am. Book Co., N. Y., '96*
 Title, *The Autobiography of Benjamin Franklin*.
 Suitable for boy? *Yes*. Girl? *Yes*. Age. *12 yrs.* Grade. *6 B +*
 Subject, *Development of a poor boy into an influential citizen.*
 Locality, *Eastern States of U. S.* Period, *Colonial Times.*
 Information, *Franklin, Early development of Philadelphia and Colonies*
 Language, *Simple, occasionally quaint.* Illustrations, *None.*
 Moral tendency, *Nutritive. Wholesome.*
 Comment, *Encourages close observation, thrift, self-improvement, good citizenship. Shows the practical advantages of virtue.*
 Date, *Feb. 12, '98.* Reader, *Francis M. Perry.*

Author, Smith, Jessie R. Title, *Four True Stories of Life and Adventure*. Suitable for boys and girls aged from seven to ten years, and in grades, two and four. It gives stories from the lives of Columbus, Miles Standish, Captain John Smith and Benjamin Franklin. Information valuable. Language simple and moral tendency good. This book can be read with ease by second-reader pupils and is full of interest. Evaluation by Florence Bass. January '98.

NOTE.—Miss Bass writes that some stories of biography can be profitably used with children of the first grade. Care should be taken to relate incidents that children can understand and to relate such incidents as are selected, in sufficient detail, to enable children to picture the scenes. Incidents full of dramatic action appeal much more strongly to little children than descriptive stories. Of course incidents of the childhood of heroes are sure to be full of interest to the little folk.

Author, Larcom, Lucy. Houghton Mifflin & Co., 1889. Title, *A New England Girlhood*. Especially suitable for girls from twelve years of age and over. Interesting to older people. It is the author's own life and gives a quaint picture of New England life in the early part of the nineteenth century. The language is choice and the information historical. The book is full of pluck, integrity and good sense and can but have a high moral influence.

Adams, C. F. Ed. *Familiar Letters of John Adams and His Wife, Abigail Adams, During the Revolution*. H. M. & Co.; Boston. "This volume is one of the most valuable documents of our revolutionary history." —*The Nation*.

Brooks, Noah. *Abraham Lincoln*. Gives Lincoln's life with the history of the times and his relation to it.

Butterworth, H. *In the Boyhood of Lincoln*. Good for a picture of Lincoln's early pioneer life and struggles.

Fiske, John. *Irving's Washington*.

Hale, E. E. *A New England Boyhood*. The reminiscences begin in Boston when Hale was four years old (1826) and continue to his graduation at Harvard. It gives comments on schools, lectures, college life and the city of Boston. It is a good companion to Lucy Larcom's "A New England Girlhood."

COLLECTED BIOGRAPHY.

Adams, W. H. D. *Child Life and Girlhood of Remarkable Women*. Sketches of Harriet Martineau, Fanny Burney, Charlotte Bronte, Lady Jane Grey and others.

Bolton, Sarah K. *Famous English Authors of the Nineteenth Century*.

——— *Famous English Statesmen of Queen Victoria's Reign*.

——— *Famous European Artists*.

——— *Famous Leaders Among Men*.

——— *Famous Types of Womanhood*.

——— *Famous Voyagers and Explorers*.

——— *Famous Givers and Their Gifts*. Brief biographies of about thirty men and women.

Eggleston, Edward. *Stories of Great Americans for Little Americans*.

Fields, Mrs. Annie A. *Authors and Friends*. 1896. Reminiscences of Longfellow, Holmes, Emerson, Lord Tennyson and others, by the widow of James T. Fields, the Boston publisher.

Harris, Amanda B. *American Authors for Young Folks*. Irving, Hawthorne, Carey Sisters, Thoreau, Lowell, H. H., Donald G. Mitchell.

——— *Pleasant Authors for Young Folks*. Scott and English authors and their works. These books can but interest the young in biography.

The following figures for the last three years were furnished at the reference desk of the Indianapolis Public Library :

1. For year ending July 1895, total circulation of books for home use, 233,776 ; biography, 5,407.

2. Year ending July 1896, total circulation for home use, 230,979 ; biography, 5,992.

3. Year ending July 1897, total circulation for home use, 238,311 ; biography, 5,343. (Further data will be furnished.)

Mr. Arthur Cunningham, Librarian at Terre Haute, Indiana, writes : "Among the most used biographical works are the following : Lodge's Hamilton, Sumner's Jackson, etc., of the American Statesmen Series; Lord's Beacon Lights of History ; Towle's Heroes of History, Pizarro, etc.; Brooks's Century Book of Famous Americans ; Bolton's Girls Who Became Famous, etc.; Wilson's Geo. Washington ; Lillie's Story of Music and Musicians ; Lamson's Bridgeman ; Warner's Washington, etc. of the Amer. Men of Letters ; Samuel Longfellow's Life of H. W. Longfellow ; Pickard's Whittier."

Miss Elizabeth Swan, librarian at Purdue, says that the life work of the young men at the university greatly influences their choice of books. She notices that they care less for fiction than the students of other schools do. They are great readers of scientific magazines.

Mr. Crunden, of the St. Louis Public Library, sends the following list of the most popular works on biography drawn from that library :

| LIFE. | AUTHOR. | LIFE. | AUTHOR. |
|------------------|------------------|---------------|------------------|
| Cellini | Symonds | Johnson | Boswell |
| Carson | Abbot | Mary Stuart | Lamartine |
| Crockett | Abbot | Amiel | Journal |
| Alcott | Cheney | Rousseau | Confessions |
| Marie Antoinette | Imbert | Pepys | Diary |
| Jefferson | Autobiography | Grant | Personal Memoirs |
| Frederick 2nd | Carlyle | Josephine | Imbert |
| Eliot, Geo. | Cross | Hamilton | Morse |
| Dickens | Foster | Jefferson | Morse |
| Napoleon | Abbot, Bourienne | Goethe | Lewes |
| Washington | Irving | Franklin | Autobiography |
| Michael Angelo | Grimm | Romance of an | Walizewski |
| Darwin | Darwin | Empress | |
| Lincoln | Herndon, Nicolay | St. Paul | Farrar |
| Voltaire | Patton | Bronte | Gaskell |
| Boone | Abbot | | |
| Henry, Patrick | Wirt | | |

Mrs. Margaretta De Bruler, of the Industrial Training School, Indianapolis, writes : "The boys of the 10 B grade enjoy reading the biographies of great men, and are about equally divided in their admiration for Cæsar, Napoleon and Lincoln. The girls read along their line of interest and have read fewer biographies and more stories than the boys. All are more or less familiar with the lives of American authors. Usually, these books have been read at the suggestion of their teachers."

No mention has been made of "Plutarch's Lives." Any collection of sketches would be incomplete leaving out this book with its strong, sturdy stimulus. It gives one backbone to go through its pages. Arthur Hugh Clough's translation is considered the best.

NEWS.

The evaluation work in Indianapolis has been going on since last month. The librarian has had the cards printed and will provide a receptacle for them. She explained to the principals how the cards were to be used and teachers are taking hold of the work.

Teachers may not know what help library journals can be to them. The *Monthly Bulletin* issued by the Providence Library often has in it matter that can be cut out, pasted on cards and used by pupils with profit. The number in which all of Scott's novels were evaluated is an especially help-one and has been used by some schools.

History will be considered next month. Communications requested.

WABASH COLLEGE has decided on the establishment of a chair of pedagogy, thus carrying out one of the original designs of the college.

QUESTIONS AND ANSWERS.

STATE BOARD QUESTIONS USED IN JANUARY.

GEOGRAPHY.

1. *What are Trade Winds? Why so called? How caused?*

Trade winds are steady, permanent winds moving obliquely toward the equator, from the north east, north of the equator, and from the southeast, south of the equator. "Since the air over the equatorial regions is warmed more than that on any other part of the earth's surface, the denser air moving in toward the warmer region causes currents; these are deflected by the effect of the earth's rotation." They are called trades because they blow with marked persistency and steadiness.

"The word *trade* (compare *tread*) once meant a trial or a path."

2. *Why is the eastern part of Europe colder than the western part, in the same latitude?*

The eastern part of Europe is colder than the western part for the following reasons: (a) Partly on account of the cold or diminution of temperature produced by the chilling winds which come from the polar sea across the frozen plains and mountains of Siberia. (b) Partly on account of the hot winds proceeding from the burning deserts of Africa. (c) To a small extent on account of the warming influence of the Gulf stream.

3. *Explain the cause of the Sahara. Of the Desert of Gobi.*

The cause of deserts is lack of moisture or rainfall. The Sahara is in the track of the northeast trade winds, but they are dry having been blowing almost wholly over land. The desert of Gobi is north of the Himalayai mountains, which prevent moisture from passing north of them by condensing it.

4. *What political and commercial advantages would the possession of Cuba give the United States?*

It would make the Gulf of Mexico a *mare clausum*, protect the mouths of our western rivers, and add to the security of all the Gulf States. It would increase our wealth, our agricultural products, our shipping, and our commerce. It would increase our internal commerce and stimulate our productions. It would give our coasting trade an impetus which would immensely add to our tonnage, while it would cheapen the production of staples necessary to life, thereby adding to the comfort and well-being of our laboring classes and increasing the rewards of their industry. It would add to our imports and exports. In due time it would form one (perhaps more) of the richest and most prosperous states in the Union. Havana would become a great world-emporium of commerce; commercial towns would spring up all over the island and our new coasting trade would afford a school for the education and discipline of our hardy mariners.

5. *What geographical reasons can you give for the importance of Marseilles?*

Marseilles is favored by climate, by its position on the coast of the Med-

iterranean, and by the fertility of the surrounding country. A canal from the Rhone river adds much to its commercial importance. Marseilles is in the pathway of much travel and commerce moving north and south.

6. *What and where is the Suez Canal? What is its length, and what its commercial advantages.*

The Suez Canal is an artificial waterway joining the Red Sea to the Mediterranean. It is ninety-two miles long and cost \$102,750,000. During the first six months of '97, 1,458 ships passed through it, of which 908 were British. It admits the largest steamships and connects the commerce of Europe with that of southern and eastern Asia. It is the most important maritime trade route in the world, and thousands of miles are saved by its directness in comparison with the route by way of the Cape of Good Hope.

PHYSIOLOGY.

1. *Describe some experiments which may be made to show the properties of blood where very little apparatus is available.*

The blood (a) is red, when seen in sufficient quantity; (b) is warm, tested by the thermometer; (c) is heavier than water, tested by weighing each; (d) is alkaline, tested by litmus paper; (e) is fetid as to odor, tested by smelling it; (f) is slightly salty, tested by tasting it; (g) is opaque, as can be tested by the eyes; (h) has the property of forming fibrin, put some fresh blood in a vessel and with a bunch of dry twigs whip it briskly for five minutes, and there will collect on the twigs fine white threads of fibrin, the blood remaining fluid; (i) has the power of coagulation, due to the formation of fibrin in it, after it is drawn from the living body.

Give a small amount of blood free access to the air, and coagulation, or the forming of a clot, will soon take place. If allowed to stand for a day, the clot will be seen floating on a nearly colorless serum. If the clot is broken up and exposed to the air, it will become scarlet.

2. *Is starch a food for an animal cell? Give reasons for answer. What definition does this suggest for digestion?*

Starch (after being prepared by digestion) is a food for an animal cell. It is a carbohydrate. The amount of carbon dioxide excreted in twenty-four hours, under the influence of muscular work, has been proved to be much more than the amount which could come from proteid changes, and that a muscle must work also from the oxidation of carbonaceous, non-nitrogenous compounds. Digestion is the process by which the substances which are eaten are transformed into nutritious materials capable of being absorbed and assimilated.

3. *What uses may be made of the frog in the study of physiology in a common school?*

It may be used to show (a) the movements of the "lymph-hearts" which keep up the flow of lymph in the lymphatics. (Look for the slight pulsations near the end of the backbone on each side); (b) the heart movements, by chloroforming it and then laying bare the heart, (many other points regarding the circulation can at the same time be observed); (c) the action of cilia in the live frog's mouth, the motion being the reverse of that

in the human trachea ; (*d*) the reflex action of the spinal cord ; (*e*) the circulation of the blood, by examining with a microscope the thin webbed portion of the foot.

4. *What do you consider the logical order of teaching the various systems? Why?*

1st, Osseous tissue, the framework. 2nd, Cartilaginous tissue, part of the framework. 3rd, Muscular tissue, the chief covering of the framework. 4th, Connective tissue, the packing, binding, and supporting structures. 5th, Areolar tissue, the protective covering for the tissues of delicate and important organs. 6th, A dipore tissue, soft packing material, heat retainer and reserve supply for the body. 7th, Nervous tissue, the source and carrier of impressions.

In any structure, the mind naturally wants to know about the framework first ; then its chief covering or attachment ; next, its binding, packing and supporting materials ; the material for protective functions ; etc.

5. *Explain blushing.*

Blushing is caused by the sudden enlargement of the smaller arteries of the face and neck—the enlargement being caused by some mental emotion bringing about, by means of certain different nerve fibres, an action on the vaso-motor center, that lessens for a time its influence over the tone of the blood vessels, and their channels widen as a consequence. (See last half of answer to sixth.)

6. *What is meant by nervous inhibition?*

By *nervous inhibition* is meant the restraining action that is effected upon the vaso-motor center (vaso-constrictor centre), as a result of the influence of certain different fibres (depressor nerves).

"In blushing, for example, under the influence of an emotion, that part of the vaso-motor centre which supplies constrictor nerves to the arteries of the skin of the neck and face, is inhibited by nerve fibres proceeding from the cerebrum to the medulla-oblongata, and the face and neck become full of blood and flush up."

7. *Why is a blow on the abdomen frequently fatal?*

Certain well defined net-works of nerves are called plexuses. One of these in the abdominal cavity composed of sympathetic nerves, is called the *solar plexus* because its fibres radiate somewhat like solar rays. This plexus supplies nerves to the intestines, liver, kidneys and stomach. If a person receive a severe blow upon the abdomen, the shock received by these sympathetic nerves and transmitted to the brain may cause death even though no tissue be torn or broken.

UNITED STATES HISTORY.

1. *Give your estimate of the character of Henry Clay, using about 200 words. What are the sources of your information?*

Clay was a highly refined Kentuckian—yet a Kentuckian as his taste for gambling, among other characteristics, showed. In youth, he was fervidly democratic, fascinating, and strongly favored the War of 1812. At that time, he and his party were called the "war-hawks" of Congress. He

had an ardent spirit, and was a paragon of the personal fascination, now styled magnetism. He was ardently patriotic after the war-hawk fashion, but the presidency was always in his thoughts and its attraction accounts for the perturbations of his political orbit. His policy and sentiments were intensely American and by the cosmopolitans he would now be designated as jingo. He was a protectionist on what he deemed patriotic grounds, and the chief author of a system to which Hamilton had only moderately inclined. He was for national expenditures on public works, for national grants of money to the States, for everything that could magnify the Nation. The Union, as the palladium of national greatness, was his idol, and his proudest achievements as a statesman were compromises by which the Union was saved for a time when it had been imperiled by collision between the slave states and the free. Over each of these compromises he drew the brilliant rainbow of complacent eloquence, which, however, proved no guarantee against the flood. A native of the great slave state of Virginia settled in Kentucky where slavery existed though it did not predominate, he seems at least to have felt the evils of the system, and he had done himself credit by opposition to it in his earlier days. But the highest and the absorbing object of his affection was national greatness embodied in the Union. He was the head, the author, and the pride of the Whig party; but as presidential candidate, he found a compromise between opposite policies too much for his address. He was a dazzling and fascinating, but artful politician, who owed his fall to a false step in the practice of his own art.

2. *Is the Declaration of Independence sound political doctrine? Cite instances justifying your answer. Does it accord throughout with the life and character of Jefferson?*

Yes and no, according to the character of the meaning given to it. Yes, if by "free and equal" etc., there is meant the liberty of the citizen in a government of the people, for the people, by the people; that is, civil and political equality. No, if by "free and equal" etc., there is meant the freedom and equality of the Indian. Equal civil rights do not imply that we all have rights to equal things. Equal political rights do not mean that men are politically equal. In capacity, in energy, in influence, in achievement, in reputation, men remain to the last degree unequal. A prominent writer says of the Declaration of Independence: "It opens with sweeping aphorisms about the natural rights of man at which political science now smiles, and which, as American abolitionists did not fail to point out at a later day, might seem strange when framed for slave-holding communities by a publicist who himself held slaves." Of the abolition of slavery Jefferson was a philosophic advocate, but he never emancipated his own slaves.

ARITHMETIC.

1. *Define what is meant by the sum of two numbers. Add the numbers 213, 146, 937; and explain each step of the process as you would to a class commencing the study of addition.*

(a) By the sum of two or more numbers is meant the result obtained by adding them. (b) See any good text.

2. Give such explanation as you would use to make a class thoroughly appreciate the concept, "common fraction."

As a fraction is one or more of the equal parts of a unit, the explanation asked for should be the kind suitable to accompany a concrete illustration of the fraction that is being explained. For example, in illustrating and explaining $\frac{1}{2}$, take an orange or an apple and cut it into two equal parts, which are to be named and the name written. Then cut each half in two pieces; each of these is to be named and the name written. Next, take two of these fourths in the hand and ask for the number of fourths you have. Write the expression two-fourths in words and in figures. Next take three of the pieces and ask how many fourths you have, and let the answer be written in words and in figures. Call to the minds of the class the whole apple; let them comprehend it as one thing, a unit. Call to the minds of the class the pieces, or parts; let the pupils comprehend them as parts of a unit that has been divided. Explain that a part of a unit that is divided, or broken, is called a *fraction*. State that the expression written on the slate (paper or board) represents parts of a unit called fractions.

3. Is a knowledge of the history of arithmetic necessary to one teaching it? Give reasons for your opinions. What books do you know of treating the history of arithmetic, and which ones have you read?

Not at all, for the history of arithmetic has no relation to the progress one can make in the science of arithmetic, nor does it embody any of the principles underlying the teaching of arithmetic. The best histories of arithmetics are the works of De Morgan (1847); and that of Dr. George Peacock, published in the Encyclopedia Metropolitana.

4. How do the fractions $\frac{1}{2}$, $\frac{2}{4}$, $\frac{3}{6}$, $\frac{4}{8}$, etc., (double the numerator each time to get the next one) compare in value? Is there any one of the fractions greater than the other? Less than all the others?

Each one is one-half of the next in order. The last one is greater than all others. The first one is less than any of the others.

5. By how much does the local time of Chicago (longitude $87^{\circ} 35' 14''$ W.) differ from its standard time?

Chicago has the 90th meridian time; 90° less $87^{\circ} 35' 14'' = 2^{\circ} 24' 46''$, a distance corresponding to 9 min. $39\frac{1}{8}$ sec. of time, the difference between the local and standard time. The latter is thus at Chicago nearly 10 min. behind local time.

6. Find the greatest common multiple of 883; 1,785; 1,309.

The greatest common divisor of 883 and 1785 is 119; and as 1309 contains 119 an exact number of times, it is the greatest common divisor of all three.

[The question asks for the greatest common multiple. Greatest common divisor is certainly meant, as the former would be infinity.]

7. If the report of a gun $1\frac{1}{4}$ miles distant is heard in 5.87 seconds after the flash is seen, what is the velocity of sound in feet per second.

$$1\frac{1}{4} \text{ miles} = 6600 \text{ ft. } 6600 \div 5.87 = 1124+;$$

therefore the sound traveled 1124+ ft. per second.

8. Find the brokerage at $\frac{1}{2}$ of one per cent. to be paid on \$11,432.
 $\frac{1}{2}\%$ of \$11432 = \$14.29, the brokerage.
9. What principle will produce \$12 interest in 6 mos. 21 days @ 7%?
 $P. \times \frac{175}{100} \times \frac{386}{100} = \12 ; $P. = 307\frac{1}{4}$.
10. What is the value in £, sh., d. of a pile of wood 130 ft. long 4 ft. broad, 10 ft. 6 in high, at £1, 5s. 6d. per cord?
 $(130 \times 4 \times 10\frac{1}{2}) \div 128 = 41\frac{1}{4}$, number of cords of wood; £1, 5s. 6d. = 306d.; $41\frac{1}{4} \times 306 = 13052\frac{1}{2}$; the number of pence the wood is worth; $13052\frac{1}{2} \div 12 =$ £54, 7s. 8 $\frac{1}{2}$ d.

READING.

1. What two ideas may the phrase "to teach one to read" express? Which is the more important? Why?

(a) It may mean the oral expression of language; or (b) it may mean the power to gather thought from the symbols. The latter is considered of the most importance, because it is the way a vast majority of mankind must get their knowledge.

2. What phase should the teaching of reading present at the first of a child's work in this branch?

The recognition and comprehension of words as representatives of ideas.

3. Discuss the value of using the newspaper and magazine and books of general literature in teaching reading.

Such literature tests the pupils' power to read—either orally or silently by giving them a foretaste of the nature of all their reading after school life is over. It enlarges their vocabulary; broadens their comprehension of literature in general; extends their acquaintance with current events and progress in science.

4. "Give to the child as soon as he is master of the rudiments of reading some form of great imaginative literature, and continue, year after year, to set large works before him until he has completed his school course." Does this quotation harmonize with the best methods of teaching reading? Illustrate.

It does, for the test of the value of reading to a person is the power he has of constructing images or building concepts as he takes in the thought embodied in the symbols. That this power may be trained, and may grow strong, there must be used material that appeals easily and intensely to the child's imagination. It should be possible for the child to construct the imagery that would naturally accompany the text, out of the concepts that are already in its world of imagination. Let them but exist there as the disconnected and unrelated products of past experience and knowledge, yet as the child reads it will weave them into a vivid realistic picture embodying all the life contained in the text. Myths, fairy stories, narratives of children of other lands and of other times, etc., are especially valuable for this kind of training.

5. What should be the character of a set of readers? Would geographical readers or science readers be a good substitute? Why?

A set of readers should embody several important features some of which are :

(a) The first and second readers should contain many exercises illustrative of *doing* and *observing* ; and other exercises whose purpose would be to cultivate a love for the pure, the beautiful and the good.

(b) The selections in all the series should present a varied succession of thoughts and images pleasing to the pupil—selections that would stimulate the interest, arouse the curiosity, direct the imagination, and add to the store of knowledge.

(c) As far as possible, the selections that are taken should be complete, though it may be necessary to divide them into parts suitable for lessons.

(d) The selections in the advanced numbers of the series should be chosen and arranged so as to cultivate a taste for the best styles of literature ; to help the pupil choose good books ; to instil in him a strong desire to live a noble life and to be a law-abiding, patriotic citizen ; and to add to his general knowledge of science, art, history, and literature.

SCIENTIFIC TEMPERANCE.

1. *Cigarette smoking usually has what effect upon the eye-sight?*

Blindness has resulted from its excessive use, causing a disease of the optic nerve, known to oculists as "tobacco amaurosis." The eye loses its natural bright appearance and becomes dull and lurid ; it is unspeculative and unappreciative, and it answers not before the world ; its owner gazes vacantly, and often repels conversation by his stupidity.

2. *The taking of alcohol into the stomach has what effect upon the gastric juice?*

If only small quantities are given, the gastric vessels dilate, the mucous membrane becomes red, and there is an increased secretion of the gastric juice. If large doses are given, the activity of the gastric juice is destroyed, the gastric walls are inflamed, large quantities of mucus are poured out, and if the over-indulgence is continued chronic gastritis ensues, the gastric glands atrophy, and consequently we get the permanent dyspepsia of the drunkard.

3. *Which may be said to be the lesser of the two evils, the chewing or the smoking of tobacco? Why?*

By most persons, smoking is regarded as the most injurious, for several reasons :

(a) The adulterations in smoking tobacco are much more harmful than those in chewing tobacco.

(b) If a pipe is used, the smoker gets the poisonous effects of the nicotine that accumulates on the lining of the bowl and stem.

(c) The user sometimes contracts the disease known as "the smoker's sore throat," his larynx becomes inflamed, and his vocal cords diseased.

4. *The use of alcoholics has what effect upon the circulation of the blood?*

After alcohol is absorbed it influences the heart markedly. It beats

more powerfully and rapidly and the pulse becomes fuller, these results being due to a stimulating effect upon the accelerator nerves. The vaso-motor system is acted upon, and all the vessels of the body dilate, especially those of the skin. The blood pressure rises, the increased action of the heart more than compensating for the vascular dilatation. The heart, although at first stimulated, is more exhausted after the stimulation has passed off than it was before. This is also true of all the organs of the body stimulated by the increased circulation induced by alcohol.

5. *Explain physiologically the cause of the red nose of the drinker of intoxicants.*

In time, the use of alcohol paralyzes the inhibitory nerve center to such an extent that it loses its normal control over the heart mechanism. The heart's action is increased, the pulse is quickened, an excess of blood is forced into the vessels, and they become gorged and dilated; the effects of this dilation of the vessels and their engorgement are easily seen in the face and a constant repetition of the cause at last produces permanent effects, one of which is the "red nose."

6. *Does the habitual use of alcoholic stimulants affect different individuals similarly?*

It does. For illustration, see examples in nearly every community.

7. *The presence of alcohol in the blood has what effect upon the action of the kidneys?*

It at first tends to increase the secretion and discharge of the urine, this probably being a secondary result of its vascular effect; but soon the alcohol excites and irritates the delicate renal membranes, and speedily disturbs and eventually destroys their capacity to excrete the proper materials from the blood. The continued congestion of the minute structure of the kidney interferes with the needed nutrition of the organ and forms the primary step in the evils that follow, such as inflammation, change of structure, functional weakness, and fatty degeneration.

LANGUAGE ARTS.

1. *What does the author say about the continuity of mental growth and teaching?*

There is no sudden change or break in child life; hence there should be no sudden change of one set of agencies for another in the education of the child. Changes of method and regimen should come as gradually as the changes of mind itself. (See page 55 for the full discussion.)

2. *Does this discussion suggest anything about the arrangement of courses of study in passing from one grade to another? What?*

In passing from one grade to another, the course of study should be so arranged that there would be no sudden change, but a gradual advancement in each branch so that there would be a gradual increase in the degree of effort necessary to prepare the lessons. The higher the grade, the less the use that may be made of the concrete and the more the use that may be made of the abstract, in illustrating and explaining principles, for the pupil has the ground work on a concrete basis, and he will instinctively recall, in

his mind, all necessary aid in this line that is needed. (See pages 55 and 56.)

3. *Name the exercises given by the author, to be employed in the more advanced stage of language teaching.*

(a) Copying and dictation exercises; (b) composing themes and essays; paraphrasing; (d) the imitation of chosen models; (e) translation. (See pages 56 to 63.)

4. *Describe at least two of them.*

(See pages 56 to 63.)

5. *How long should composition work be continued? How does composition work aid the pupils in the use of English.*

After it is begun, it should be continued throughout the entire course. There is no other exercise more valuable in training the pupil to use good English than that of composition writing. It gives him the test of putting ideas into sentences. In talks or speech, there is no chance to take time to give forth good English. But in composition the pupil has time to choose and arrange his words, and to form his sentence into a connected whole. Frequent practice in composition familiarizes the pupil with the forming of correct sentences and phrases, and the proper ways to join them, and, in time, the use of good English in both his composition and his speech becomes habitual.

6. *Show how the assignment of a lesson may help the class in the preparation of the work in language.*

Merely to assign to a class a certain subject for composition work is a great mistake. There should be a thorough investigation of the subject by the teacher and pupils working together, the teacher directing, suggesting, and questioning, the pupils following each phase of work carefully. In this way, an outline may be made consisting of general heads with subtopics and questions. The whole outline should be carefully studied and recited as a class lesson before any writing is done. When it has been recited orally and each point discussed, the ideas on each topic, that each pupil presented, have become the common property of all. Now, the teacher may say write a composition upon this subject.

GRAMMAR.

1. *Show the place of the sentence in the study of grammar. Illustrate.*

It should have first place; that is, in the study of grammar, the student should begin with the sentence. The first thing that should be required should be to divide it into *halves*, that is to state the subject and the predicate—the subject with all its attendant parts constituting one half, and the predicate with all its attendant parts constituting the other half. Whenever possible it is good pedagogy to give the pupil a conception of the unit, or whole, before he is given any of the parts. In arithmetic, for example, we show a pupil a group of five objects, and then separate the group into parts. In geography, we show a pupil the whole earth in the form of a globe, and then point out our home location upon it. In history, a conception of our Nation as it is to-day in all of its important phases (and such a concep-

tion can be given in two or three lessons) is the proper material for storage in the mind preparatory for building the frame-work of this great nation and filling it up with life and institutions. And so in beginning the study of grammar, the only proper method is to begin with the sentence as a whole.

2. *Name the kinds of ideas expressed by the words in the following sentence, and classify the words on that basis: Yellow gold is not valued above moral worth by right-thinking people.*

Gold, worth and people are names representing objects and as such are classed as *nouns*; *is valued* is an expression used to make the chief part of an assertion about an object, and as such it is called a *verb*; it is sometimes further explained by calling "is" the copula, and "valued" the attribute. *Yellow, moral and right-thinking* are used attributively, to limit nouns, and as such are called *adjectives*; *not* is used attributively to negative the idea "valued," and as such is called an *adverb*; "above" and "by" are used to denote relation; and as such are called *prepositions*.

3. *How many cases have we? Why? Name them and give examples of the noun in each.*

We have three general cases, because substantives can have but three different relations to other words. The cases are the nominative, the possessive and the objective. Examples of each are numerous. There are different kinds of nominative case and different kinds of objective case.

4. *State four uses for the passive voice and give one example for each.*

The passive voice is used when (a) it is not desirable or possible to mention the agent or doer; (b) when it is desirable to set forth prominently the object that received the action; (c) to give variety to discourse; (d) to aid in expressing the thought clearly and compactly. (Examples illustrative of the two last uses often occur in composition or essay work).

Examples of the four preceding uses: (a) The barn was burned by an incendiary. (b) The farmer welcomed the worthy stranger to his home. (c) "The guests partook of the generous repast provided for them, after which several speeches were made by prominent visitors." (d) The books were bought and distributed last week.

5. *What do we mean by the old and new conjugation of verbs? Illustrate.*

The ancient conjugation (we suppose *form* is meant) has the ending *eth*, instead of *s* or *es*, in the third person singular; and *ye* instead of *you*, in the second person plural.

The new or modern conjugation has *s* or *es* in the third person singular, and *you* in second person plural. The ancient form (or solemn style) is used in the Bible, by the religious demonstration called Friends, frequently in religious worship, sometimes in poetry, and sometimes in burlesque.

SCIENCE OF EDUCATION.

1. *What is the theme of the Phædrus?*

It has two: *Love*, the leading theme; *Rhetoric*, or the Art of Discourse.

2. *What is meant in this dialogue by the transmigration of souls? What evidence is there that Wordsworth held this doctrine?*

(a) The migration of the soul from one body to another; (b) Read Wordsworth's "Intimations of Immortality."

3. *What educational thoughts of value are expressed in the Phædrus?*

The following thoughts of value are to be gained (a) That ease, freedom of expression, and unity of feeling should exist between the pupil and the teacher; (b) that the teacher must be enthusiastic, and in earnest, if he expects to arouse interest; (c) that the teacher should, as far as possible, be interested in what interests the pupil; (d) that the teacher should be an example worthy of imitation; (e) that the teacher should know the subject to be taught, and also the child that is to receive the instruction.

4. *What rank among the dialogues of Plato is accorded to the Republic?*

By most critics it is put in the highest rank.

5. *The subject of the Republic is usually given as justice. What does the term justice mean when thus used?*

The law of right living as a man and as a citizen—individually and socially. The line of action we should always pursue in regard to self and in regard to our contact with others, involving the virtues of a noble life.

6. *What are the two worlds in which, according to the Republic, the individual lives?*

(a) The ideal world—"which is eternal, unchangeable, absolutely good, absolutely beautiful, absolutely one, in all ways, absolutely perfect."

(b) The world of imperfect things with which we are in connection on earth.

SOLUTIONS REQUESTED.

A horse and carriage were sold for \$400, the horse bringing 3 times the price of the carriage; if there was a profit of 20% on the horse, and a loss of 20% on the carriage, what was the gain on the two? (Ex. 16, p. 97, Ind. Comp. Arith.)

Solution: Cost of the carriage = cost of the carriage;
Cost of the horse = 3 (cost of the carriage).

Hence, cost of the horse and carriage = 4 times the cost of the carriage = \$400; therefore, the cost of the carriage = \$100, and the cost of the horse = \$300.

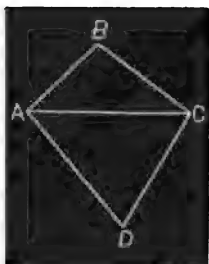
A profit of 20% on the horse makes the \$300 = 120% of the cost; then, 1% = \$2½; and 100%, or the cost of the horse, = \$250.

A loss of 20% on the carriage makes the \$100 = 80% of the cost; then 1% = \$1¼; and 100%, or the cost of the carriage, = \$125.

\$400 - (\$250 + \$125) = \$25, the gain on the two.

In a trapezium, the sides in order are 30, 32, 34, and 36 feet, and the

length of the shorter diagonal is 40 feet; what is the area? (Ex. 2, p. 306, Ind. Comm. Arith.)



$$AB = 30$$

$$BC = 32$$

$$CD = 34$$

$$DA = 36$$

$$AC = 40$$

The sides of ABC are 30, 32 and 40.

The sides of ADC are 34, 36 and 40.

$$30 + 32 + 40 = 102; 102 \div 2 = 51; 51 - 30 = 21; 51 - 32 = 19; 51 - 40 = 11; 51 \times 21 \times 19 \times 11 = 223839; \sqrt{223839} = 473.119.$$

$$34 + 36 + 40 = 110; 110 \div 2 = 55; 55 - 34 = 21; 55 - 36 = 19; 55 - 40 = 15; 55 \times 21 \times 19 \times 15 = 329175; \sqrt{329175} = 573.737.$$

$$473.119 + 573.737 = 1046.853, \text{ answer in feet.}$$

QUERY 62. What is the difference between the *theme* and the central thought of an essay? (A subscriber, Knox, Ind.)

QUERY 63. Who was the author of the Missouri Compromise? Give authority. (Inquirer, Richmond, Ind.),

TOWNSHIP INSTITUTE OUTLINES.

PLATO, THE TEACHER.

REPUBLIC, BOOK IX.—In reply to the question, whether there is such a city upon earth as he has been describing, Socrates says: "In heaven, there is laid up a pattern of such a city, and he who desires may behold this, and beholding, govern himself accordingly."

Thus does Plato intimate that the ideal state, not only does not exist among men, but that he realizes that it can never be attained by fallible human beings. At the same time he believes that the vision of perfection will lead to higher levels of thought and action. Like Moses, the man who has such an ideal will hear the voice of God saying, "See that thou make all things according to the pattern showed to thee in the mount."

While it may be easy to show that Plato's view was influenced by class prejudice and that his assumption that industrial pursuits are incompatible with philosophical thinking is contradicted by the experience of the modern world, yet the educational value of his analysis of the various kinds of character among men, and of the influence of motives and principles of conduct is, in no wise, invalidated thereby. The thoughtful observer of American democracy must discover in the expressions of certain classes of our people the same ideas concerning freedom and the relations of the poor to the rich as are so forcibly presented by Plato in his portrayal of the evils that are likely to infest a democracy.

For this very reason, a careful study of the teachings of Plato's *Republic* cannot fail to be stimulating to the teacher of American youth, who realizes

that upon the ideas of what constitutes real worth, which are instilled into the minds of the growing generation, will depend, in large measure, the future of this nation.

Rousseau's dictum : " Let him first be a man," is a concise statement of the central doctrine of Plato's *Republic*, which is, above all, ethical, and if ethical, then educational.

In Book IX, wherein Plato traces the evolution of tyranny out of democracy in man, the miniature state, two principles in education are emphasized : *first*, that intellectual pleasures are the highest : *second*, that liberty and lawlessness are not only not synonymous, but that they are eternally opposed to each other.

In discussing the comparative pleasures that inhere in the three-fold nature of man, Plato does not deny the reality of the fact of pleasure in each case nor does he assert that the pleasures of the senses and the desires are, in themselves, evil. The evil comes from excess, or from a satisfaction in these lower realms which prevents the individual from seeking the good that arises through cultivation of the mind.

The educator who would develop harmonious life in those under his care must provide for the reasonable gratification of the different natures that co-exist in every child, taking care to prevent all excess. At the same time by every possible means, he must seek to arouse a love of the higher pleasures of the mind and heart.

The picture conjured up by the imagination of Plato may, it seems to me, be wisely used to develop a consciousness of the complexity of human nature, and of the necessity of following Plato's advice : " he ought to aim in all he says and does at strengthening the man within him, in order that he may be able to govern the many-headed monster." Plato, like Goethe, realized that, under certain conditions of life, he might have been capable of committing all the crimes of which any man has ever been guilty. Self-knowledge, which must be one of the aims in education, implies such an understanding of the threefold nature, and of the conflict of motives within.

A sane mind will prefer the higher and more lasting to the lower and transient. It is the function of education to lead the youth to know that truth and goodness are the really beautiful, that he may desire the pleasures which attend them above all other pleasures.

The second educational principle named above follows as a natural corollary from the first. Plato cannot paint in too dark colors the wretched state of the man who is enslaved by the tyranny of his own passions. The right to the pursuit of happiness is not absolute, but relative. The idea that lawlessness is a synonym for liberty is fitly referred by Milton to the rebellious spirits who have been expelled from Heaven. Education should impress the truth that—

" He is the freeman whom the truth makes free,
And all are slaves beside."

The view of the influence of poetry expressed by Plato in Book X, savors somewhat of that taken by the ascetics and the Puritans. His disapprobation of epic and dramatic poetry reminds one of Bacon's words.

"One of the fathers," he says, "calls poesy 'the wine of demons,' because it filleth the imagination, and that with the shadow of a lie." Professor Jowett thinks that this somewhat surprising attitude of Plato is due to the fact that, in his own lifetime poetry was declining. Aristophanes, who had boldly satirized Socrates and the study of philosophy, had made his art odious in the eyes of the Socratic school of philosophers. Then, too, the profession of an actor was regarded by Plato as a degradation of human nature, because he thought that the playing of many parts led to insincerity and falseness of life.

It seems to be evident that, in his reverence for philosophy, Plato was led into the very mistake which he had so strongly condemned,—that of excess. He forgets to discriminate between true sentiment and the weakly sentimental. The emotions are, in his view, inferior to the rational faculty, and therefore, poetry, which speaks to the emotions, he pronounces unwholesome. Plato's objection to poetry proceeds from the same idea as that which leads the Mohammedans to renounce all representations of the divine.

The concluding portion of the *Republic* is worthy of the lofty conception of the innate beauty and strength of truth and goodness which characterizes Plato's view of the soul-life. His faith in the ultimate triumph of virtue; in the love that causes everything to work together for good to the just man, is like that of the great apostle; and like him, Plato finds in faith the "substance of things hoped for, the evidence of things not seen." Since, in this life, the unjust do often triumph a belief in immortality is, for Plato, a logical necessity. Plato rests his belief in immortality chiefly upon the fact of the dual nature of man. Spirit differs from the body in one vital point; while death comes to the body as a consequence of disease, the soul is not destroyed by its proper diseases, sin and vice.

The vision of Er, in which Plato embodies his ideas of the soul's experiences in the next life, makes man the real master of his own destiny. What he is here determines his hereafter.

Necessity has decreed that all those except the great criminals whose tortures are continually renewed, shall re-enter a body, animal or man, according as their previous affinities are bestial, or intellectual. Curiously, their choices are made upon the principle of opposites; each one trying to avoid the particular kind of life that he had previously experienced.

Between this vision of the Judgment and that given by Matthew (XXV; 31-46.) the contrast is striking. Love and sympathy, and brotherly helpfulness determine the measure of worth, in the mind of Christ; the second great commandment, and the golden rule of life, which is its practical embodiment, does not seem to have entered the thought of Plato. And yet, his ideal is high. It might be expressed in the words of Milton:

"Love Virtue! she alone is free:
She can teach you how to climb
Higher than the sphery chime."

The dialogue of the *Phaedo* with its noble reasoning, fitly follows as a sequel to the argument for immortality with which the *Republic* closes.

Death is here shorn of all its terrors, for "There can no evil happen to a good man in life or death."

Calmly, fearlessly, trustfully, Socrates faces death. To live so as to have no fear of leaving life is, perhaps, the crowning lesson in the education of the spirit.

LOIS G. HUFFORD.

THE BOOKS RECOMMENDED TO THE MEMBERS OF THE TEACHERS' READING CIRCLE FOR THE YEAR 1898-99.

At the meeting just prior to the holidays, the Reading Circle Board took under consideration the books to be recommended to the teachers for the coming year. At that time one book was definitely adopted, and several others considered. The one adopted was for the general literary course. It is on the subject of sociology, and is prepared by C. R. Henderson, of the department of sociology in the Chicago University. The great prominence that the social feature has assumed, within the last few years, with regard to education led to the consideration and adoption of a book of this nature. It is constantly becoming more apparent that education itself is essentially a social progress and hence is to prepare the child for participation in society. This is admirably shown in the small pamphlet, recently published by E. L. Kellogg & Company, containing the pedagogical creed of Dr. John Dewey, and an article by Dr. Albion G. Small, on the subject, "The Demands of Sociology upon Education."

At the meeting held during the session of the State Teachers' Association by the Reading Circle Board, it was deemed best to recommend for the pedagogical line of study a continuation of the work upon "Plato, the Teacher." It was thought that the year's work upon the various dialogues contained in the book would be an excellent introduction to a more definite and extended study of the Republic—the dialogue that contains Plato's most extended treatment of the subject of education. It was also thought that by the use of this dialogue a large body of the teachers would be saved the expense of the purchase of an additional book. The plan of the Board was to have a more extended introduction to the Republic prepared in the spirit of the introduction to the Phædo in "Plato, the Teacher." Accordingly the Board concluded to use the Republic for the coming year, provided satisfactory arrangements could be made for the preparation of such an introduction. A committee was appointed to confer with Dr. Wm. L. Bryan and to report upon this subject at a subsequent meeting.

At the recent meeting of the Reading Circle Board, held February 4, this committee made its report. According to this report, Dr. Bryan said that he would undertake the work of preparing an introduction, provided it would be understood that the principal aim of the introduction would be to turn the teachers to a close and sympathetic study of the text of the Republic itself since this, in his opinion, would be of higher value than commentaries upon it. It would, therefore, be his aim to divide the work of the Republic into about as many parts as there are township institutes, say six to seven, and to give to the Republic a treatment similar to that which he would give to it in a class studying the Republic. The aim at every step

would be to inculcate a tendency to read the text of the Republic itself in a sympathetic spirit. To indicate the general nature and spirit of the introduction contemplated, reference was made to the introduction to the Phædo. Since, however, the Republic is to be studied throughout the year, the introduction would be much more detailed and complete. The educational doctrine of the Republic and not the political features would receive the great stress as emphasis.

After a careful consideration of the report the Board concluded to recommend the use of the Republic for the coming year. The introduction will be issued separately in pamphlet form, to be used by teachers having copy of "Plato, the Teacher." The Republic itself, including the introduction, will also be issued separately, in order that those who have not purchased "Plato, the Teacher" can obtain the Republic at less expense than that involved in the purchase of "Plato, the Teacher." In the July examination for Teachers' Reading Circle diploma, the questions in "Plato, the Teacher" will not be based on the Republic, but on the other dialogues of the book. By this arrangement the teachers of the State will have the opportunity of giving a year of careful study to the first systematic view of education as presented by one of the world's great thinkers—the first view that presented education as a continuous process belonging to life itself.

F. A. COTTON, *Secretary of The Reading Circle Board.*

MISCELLANY.

PROGRAM OF SOUTHERN INDIANA TEACHERS' ASSOCIATION.

The twenty-second annual meeting of the Southern Indiana Teachers' Association will be held in Terre Haute—the day sessions in the State Normal Building and the night sessions in the Grand Opera House—Thursday, Friday and Saturday, March 24, 25 and 26, 1898.

THURSDAY, 3:00 P. M.—*Department of City and County Superintendents.* "The Relations which Should Exist Between Rural and City Schools, and How Best to Secure Them"—R. Ellsworth Call, Superintendent Lawrenceburg Schools, Leader.

High School Teachers.—"To What Extent Should the 'Legal Branches' Be Reviewed in the High School?"—Martha J. Ridpath, Principal Greencastle High School, Leader.

Child-Study Section.—Howard Sandison, Leader. 1. "The Nature of Child-Study Work in a Normal School"—Helena East, Yankton, South Dakota. 2. "Child-Study Work in Relation to Discipline"—Carrie P. Browder, Edgar, Ill. 3. "How Child-Study May Be Introduced into a City School System"—Laura Frazee, Supervisor Primary Dept. Terre Haute Schools.

THURSDAY, 4:15 P. M.—"Child Nature and How to Educate It Successfully"—Elizabeth Harrison, Principal Chicago Kindergarten College, Chicago, Illinois.

GENERAL SESSION.

THURSDAY, 8:00 P. M.—1. Music—Terre Haute Treble Clef Club.

2. Prayer—Rev. C. H. Percival.

3. Music—Terre Haute Treble Clef Club.

4. Welcome to the Association—Hon. Fred A. Ross, Mayor of Terre Haute; Pres. W. W. Parsons; Howard Sandison, Pres. of the City School Board, and Dr. Carl Leo Mees, Pres. of Rose Polytechnic Institute.

5. Response to Words of Welcome—Supt. A. E. Humke, Vincennes, W. H. Senour, Retiring President.

6. Inaugural Address—Pres. P. P. Stultz, Bloomington.

7. Appointment of committees and miscellaneous business.

8. Reception to visitors by citizens and teachers of Terre Haute and Vigo County at the Normal Building.

FRIDAY, 9:00 A. M.—1. Vocal Solo—Mary Katzenbach.

2. Prayer—Rev. W. M. Tippy.

3. Vocal Solo—Maud L. Paige.

4. Symposium—"Good Citizenship." (First paper 35 minutes, others 10 minutes.) (a) "The Place of the Public School in Insuring the Safest Citizenship"—Harriet M. Scott, Detroit Mich. (b) "The Teacher as a Factor in Society"—Mrs. L. J. Plummer, Evansville, (c) "Teaching Patriotism Through History"—Georgetta Bowman, Rockville. (d) "Good Citizenship Through Flags on School Houses and 'Flag Days'"—Mrs. Mary E. Foulke-Stewart, Middletown. (e) "Industrial Training as a Factor in Good Citizenship"—W. S. Blatchley, State Geologist. (f) "America," by the audience.

RECESS.

5. Symposium—"The Preparation and Work of the Teacher." (Ten-minute papers.) (a) "Summer Schools for Teachers"—W. C. McCullough, Sullivan. (b) "The County Institute from the Teacher's Point of View"—J. L. Shauck, Milroy. (c) "The Teacher's Examination, and why He Fails to Pass in Arithmetic"—D. A. Ellabarger, Richmond. (d) "The Most Helpful Supervision for the Teacher"—Alice Funk, New Albany. (e) General Discussion—Calvin F. McIntosh, Leader.

FRIDAY, 2:00 P. M.—DEPARTMENTS. *City and County Superintendents.* "Report of the Committee of Twelve," and How we May Profit by It"—Orville Apple, Leader.

High School Teachers.—"Should the So-called High School Studies be Taught in the Grades?"—Lotus D. Coffman, Salem, Leader. Discussion—C. W. Marble, Jeffersonville; J. W. Short, Liberty; S. W. Conroy, Brookville.

Section in Child-Study.—"Precocious Children and How to Direct Them Advantageously"—Elmer B. Bryan, University of Indiana.

Music Section.—J. M. Black, Washington, President. 1. "The Mistakes of Teachers"—M. Z. Tinker, Evansville. 2. "The Ideal in Music"—Jennie B. Thompson, Franklin. 3. Discussion of papers. 4. Selection of Music. 5. Round-Table Discussion: (a) "When and How Should Two-

Part Singing be Introduced?"—W. M. Alley, Shelbyville, Leader. (b) "Should Children in the First Grade Be Taught to Read Music?"—Beatrice O. Sanders, Terre Haute, Leader. (c) "Should the Teacher Sing with the Children?"—J. T. Reese, Richmond, Leader.

FRIDAY, 3:00 P. M.—1. Music—Piano Solo, "The Revel of the Witches," *Holtz*—Miss Wellie Geeting, Indianapolis.

2. "Educational Co-operation"—Samuel T. Dutton, Supt. Public Schools, Brookline, Mass.

FRIDAY, 8:00 P. M.—1. Prayer—Rev. John E. Sulger.

2. Vocal Solo—Mr. Dan Davis.

3. "The Place of the Reform School in the Educational System of the State"—Thomas J. Charlton, Supt. State Reform School, Plainfield (20 minutes.)

4. Quintette from "Martha"—St. Stephen's Quartette.

5. Annual Address.—"The Form and the Substance of Culture"—Rev. Washington Gladden, Columbus, Ohio.

SATURDAY, 8:30 A. M.—1. Prayer—Rev. William Torrance.

2. Vocal Duet—Mrs. Howard Mater and Mrs. Geo. A. Scott.

3. Symposium—"The Pupil's Best Interests in School." (Ten-minute papers.) (a) "Departmental Work"—Mrs. Lucretia G. Armen, Columbus. (b) "Discipline that Endures"—Lula Clark, Martinsville. (c) "The Strongest Teacher for the Weakest Pupil"—Evelyn Mitchell Butler, Butler College, Irvington. (d) "Basis of Promotion"—Emery Muncie, Brazil. (e) General Discussion—Elbert E. Helt, Supt. of Vermillion County, Leader.

4. Address—"The Social Possibilities of The School," Supt. Samuel T. Dutton, Brookline, Mass.

5. Reports of committees and miscellaneous business.

6. "Doxology" by the audience.

Tickets of standard form 3, for continuous passage only in each direction, may be sold from all points within the first seven congressional districts of the State of Indiana, the northern boundaries of which are the north lines of the counties of Vermillion, Parke, Putnam, Hendricks, Marion, Hancock, Henry and Wayne, on March 23 and 24, at one first-class fare for the round trip; good going only upon date of sale as indicated by stamp of selling agent; good returning from Terre Haute, to and including March 26.

Ample accommodations for the entertainment of members of the Association have been provided in private families at rates ranging from 75 cts. to \$1.25 per day, and at the hotels at following rates: The Terre Haute, \$1.50 to \$1.75, double; \$1.85 to \$2.50, single. The proprietor has also set apart a good room for all committee meetings. The New Filbick, \$1.50, double; \$2.00, single. Ohmer's, The New National, and others, \$1.00 per day.

Assignments to places may be made in advance of the meeting. Questions answered by return mail.

WM. H. WILEY,
Chairman Ex. Com.

THE NORTHERN INDIANA TEACHERS' ASSOCIATION.

The Northern Indiana Teachers' Association will meet in Kokomo, March 31, April 1 and 2.

Thursday is visiting day. The meetings will open Thursday evening at 7:30. The forenoons of Friday and Saturday will be devoted to meetings of the general Association and Dr. John Dewey, of Chicago University, and Dr. J. A. M. Lellan, Principal of Ontario Normal College, will have charge of these meetings. Sectional meetings of the art, music, high school, village and country school, writing, and grade sections of the Association will be held Friday afternoon. Friday evening, Rev. N. D. Hillis, of Chicago, Dr. Swing's successor, will deliver an address upon "John Ruskin's Message to the Twentieth Century." This is an address prepared especially for teachers and we expect something very fine. From a cursory examination of the programs of the sections there is evidence that they have planned well. The Kokomo people are making great preparations and everything bids fair to eclipse the meeting at Elkhart when we had more than 1500 paid membership.

The railroad rates are as follows: "Tickets of form local 3, for continuous passage only in each direction, may be sold from Indianapolis and from points in the State of Indiana on and north of a line drawn across the State through the city of Indianapolis; also from the southern tier of counties in the state of Michigan, on March 30 and 31 at one first-class fare for the round trip; good going only upon date of sale, as indicated by stamp of selling agent; good returning from Kokomo to and including April 3, 1898."

The programs will be ready about March 1 for distribution. The Clinton Hotel will be headquarters. There will be the customary rates in hotels and private families. The meetings will be held in the Grace M. E. Church, which will seat 1800.

REPORT OF THE NATIONAL SUPERINTENDENT'S CONVENTION.

The Superintendent's Department of the N. E. A., held its annual meeting at Chattanooga, February 22-24, and it was on the whole a good meeting. The attendance was fully up to the average; the program was fair and well carried out; and the interest was commendable considering the great number of outside attractions. Both the scenery and the historic interests of Chattanooga and its vicinity are remarkable. Lookout Mountain, Missionary Ridge, Chickamagua and the National cemetery are all there and of course all had to be visited.

One session of the association was devoted to the consideration of the Educational Problems of the South. It was gratifying to hear that the south is making substantial improvement in most places and in most regards.

One session was given to the consideration of "What can Child-Study Contribute to the Science of Education?" The subject was ably discussed and the general consensus of opinion seemed to be about what is embodied in the following declaration adopted at the conclusion of the session:

"We commend intelligent child-study, but believe that great caution should be observed in using the child as a subject for psychological experiments, particularly by those not familiar with essential principles which should be regarded in such investigations."

One session was devoted to the subject of "School Hygiene." The outcome of the papers and discussion was the following adopted by a unanimous vote:

"This department approves of the plan of creating a committee whose duty it shall be to make or cause to be made a scientific determination of the factors involved in the subjects of: seating, lighting, ventilating and heating of school buildings; and to this end prepare and present to this body at the meeting in 1899 a preliminary report setting forth the nature of the problems involved and its recommendations for the further prosecution

of the inquiry—said committee to consist of nine members as follows: The United States Commissioner of education, two State superintendents of instruction, two presidents of normal schools, two city superintendents and two other persons."

Another phase worthy of special mention was the paper and discussion in favor of "Continuous Sessions of Normal Schools," and in favor of "Vacation Schools" in the poorer districts of large cities.

The Round Table of the National Herbart Society held a very profitable meeting. While there may be, certainly are, defects in Herbart's philosophy, and, therefore, corresponding defects in his pedagogy, and the "regulars" may be able to point out these defects, it still is true that his followers are injecting new life and new thought into various phases of educational work and are doing an immense amount of good. Herbart's thought is permeating and modifying the thinking and working of all progressive educators. Even those that reject most of it are compelled to admit that in its practical working it is emphasizing and intensifying many practical and important phases of school work.

Among the resolutions adopted was the following:

"We endorse all suitable efforts that may be made to secure uniform qualifications for teachers' licenses for the different grades of school work, to be accepted in any state of the union, and we also favor a permanent tenure of service for worthy teachers who hold such licenses."

The press of Chattanooga, especially *The Times*, deserves special mention for the large space it gave to the proceedings of the Association.

Pres. N. C. Schaffer made a good presiding officer and everything passed off agreeably.

The following are the officers elected for next year:

President—E. H. Marks, Superintendent schools, Louisville, Ky.

First Vice-President—G. H. Conley, Boston, Mass.

Second Vice-President—A. T. Barrett, Superintendent schools, Chattanooga, Tenn.

Secretary—J. H. Van Sickle, superintendent schools, Denver, Colo.

The Indiana delegation made headquarters at the Rossmore Hotel and were well treated. They were allowed to stop a part of the time at "The Inn" on Lookout Mountain if they preferred so to do without extra charge.

The following was the Indiana delegation: Edward Ayres, J. M. Sul-lins and wife, D. M. Geeting, wife and daughter, J. W. Carr, T. A. Mott, R. A. Ogg, J. A. Carnagey, E. E. Henry, W. H. Hershman, D. S. Kelley, A. H. Douglas, R. H. Harney, W. F. Landes, W. R. Snyder, W. W. Parsons, F. M. Stalker, J. H. Tomlin, Miss Emele Newkome and sister, W. F. Britton, Elmer C. Jerman, Miss N. Cossada, Miss Edith Love, J. N. Kirtley, B. M. Morgan, O. J. Pursel, W. B. Penticost, S. Butler, H. B. Makepeace. The last six named are trustees from Marion County, and deserve special mention. Besides these were W. B. Sinclair and wife who are spending the winter in Chattanooga, and W. P. Burris, late of Indiana, now of Salem, O.

SPECIAL OFFER.

We have at our command a number of remarkably fine portraits of Washington, Lincoln and Longfellow. They are life size, 22x28 inches, and just such as have been selling for \$1.00 each. If possible, every one of these pictures should be in every school room and they are fine enough to adorn the walls of our homes.

To any one sending us a new subscription to the JOURNAL, or the renewal of an old one, and \$1.25, we will send the JOURNAL one year and one of the above named pictures. To any one sending us two new subscriptions or two renewals and \$2.50, we will send two copies of the JOURNAL (separate address) and all three of the pictures. Just a little exertion will secure these beautiful pictures for your school room.

THE spring term of the Tri-State Normal will open March 8, and not March 9, as noted before. Classes for all.

PORTER COUNTY CHILD-STUDY ASSOCIATION held an interesting meeting February 19. "Nervous Diseases in Children" and "Child Study for Mothers," were two very practical subjects considered.

VEEDERSBURG.—A Summer Normal School will be opened at Veedersburg May 2, under the direction of W. E. Carroon, Chas. F. Miller and Geo. W. Gayler. The announcement indicates work of a very high order.

The Lone Star State Philatelist is a paper that will be of special interest to collectors of old and rare coins and stamps upon which premiums are paid. It is ably edited and published by Royal Bennet Bradley, Abilene, Texas

MICHIGAN CITY.—"Indiana's Front Door" has seven school buildings, all built within nine years, which accommodate a school population of 1,600. Edward Boyle is superintendent and E. R. Sturtevant is principal of the high school.

THE SCHOOL BOARD of Milwaukee, Wis., on January 17, ordered *thirteen hundred bound volumes of Black Beauty* for use in their schools. Children who are educated to be at all times kind to dumb animals cannot fail to make reliable citizens.

Union Christian College Echo, is the name of a new College paper published at Merom. The first issue looks well and reads well. All the friends of U. C. C., old and new, will want a copy regularly. The *Echo* announces the Normal class will begin March 29.

ERRATA.—In last month's JOURNAL two or three annoying mistakes occurred in the article by E. B. Myers, criticising state board questions; "solid shot" should read *valid* shot; "criticism" should read *criticisms*; and "has been" should be, *have been*.

WASHINGTON has taken possession of its new school building, which is modern in every respect and one of the best in the state. Fires are sometimes good things for the children although hard on the pocketbooks of their parents. Superintendent Axtell and his entire corps of teachers are happy.

E. STERN INDIANA NORMAL UNIVERSITY.—About two years ago Muncie conceived the idea of establishing a Normal School and a plan was matured. The sale of lots was begun but the "hard times" put a stop to this, as to many another enterprise. Recently the enterprise has been revived and work is being pushed with fair prospects of success. Muncie is surely a good location for a Normal School. For full particulars address Chas. A. Van Matre, superintendent of Delaware county.

DEER CREEK TOWNSHIP, CARROLL COUNTY.—The teachers of this township in their February meeting passed a series of resolutions and requested their publication in the SCHOOL JOURNAL. The following have more than a local interest:

Resolved, That we are in sympathy with every movement which tends to advance the educational interests of the State—that we are opposed to any legislation detrimental to our private normal schools and colleges and in favor of State schools—that justice and equality be extended alike to all educational institutions.

Resolved, That we commend the T. R. C., of the past year, also the Y. P. R. C., and admire the interest taken by teachers and pupils in adding to their school libraries. In addition to these was one endorsing the teaching of patriotism in the schools, and others endorsing the work of the superintendent and trustees.

PERSONAL.

J. B. ROYCE, has under his direction the Schools at Holton.

W. H. GLASSCOCK and his wife are both attending the State University.

MISS MARY RITTER is the new teacher of English in the Greencastle schools.

A. C. HUFF, superintendent of Spencer County, has arranged to open a county normal at Rockport, May 23. Write him for particulars.

MRS. MAUDE BUNDY, formerly a teacher in the Valparaiso schools, is now in charge of the training department of the Chattanooga Normal School.

DR. H. M. EVANS, a former teacher in the Northern Indiana Normal School, is now President of the Chattanooga Normal School. The school is growing under his management.

JUST as we go to press, we learn through the columns of the daily newspaper that J. N. Study, while in Chicago, a few days ago, slipped and broke a leg. We trust this may not be as serious as reported.

J. F. WARFEL is serving his tenth year as superintendent of the Ladoga public schools. Ladoga has just completed a new school building which is a model in convenience, arrangement, and general appearance. Mr. Warfel is also editor of the Ladoga Leader, and has no trouble in keeping the local press in sympathy with the schools.

W. B. SINCLAIR, formerly superintendent of Knox County, is spending this year at Chattanooga in order to get a much needed rest and also on account of his wife's health. Both Mr. and Mrs. Sinclair are looking well and much improved. Mr. Sinclair is putting in a part of his time teaching pedagogy in the Chattanooga Normal School. He will return home about April 1. Many of his Indiana friends are insisting that he shall again take the race on the Democratic ticket for Superintendent of Public Instruction.

BOOK TABLE.

THE AMERICAN WORD BOOK, by Calvin Patterson, A. M., Principal of Girls' High School, Brooklyn, N. Y. Cloth, 12mo., 192 pages. Price, 25 cents. American Book Company, New York, Cincinnati and Chicago. This new spelling book follows a carefully developed and progressive plan for teaching the forms and values of English words in common use. It begins with words illustrating the primary sounds, the words being printed in Roman letters and vertical script. Then follow graded lessons on different classes and uses of words covering a wide range of science and literature. There are also exercises in dictation, punctuation, word-building, discrimination of synonyms, etc. The book is a great improvement over the average spelling book.

SCHILLER'S WILHELM TELL with introduction and notes by W. H. Carruth, Ph. D., Professor of the German Language and Literature in the University of Kansas. New York: The Macmillan Co. Since Wilhelm Tell is an acknowledged book in every course in German, it is well to get the most helpful edition. The Introduction by Mr. Carruth furnishes outside material not generally accessible. Over fifty pages are devoted to this introduction which is made very complete. Mr. Carruth thinks that pupils who can read "Tell" should have a German Dictionary, so there is no vocabulary. There are some very beautiful pictures (photo-gravures) representing scenes in Germany that are connected with the memory of Tell and carefully prepared notes for the aid of students may be found at the close.

THE COMMON-SCHOOL SYSTEM OF GERMANY AND ITS LESSONS TO AMERICA.—By Levi Seeley, Ph. D., author of the "Grube Method," "Grube Idea," one of the translators of Lange's "Apperception." Published by E. L. Kellogg & Co., New York. In order to present an accurate picture of the German School system, especially that of Prussia, Mr. Seeley made a personal inspection, remaining four years in Germany and supplementing this personal knowledge by several years' study of what has been written in regard to German schools. Mr. Seeley did not confine his observations to the school systems of the large cities but visited the schools of lonely villages where perhaps there was but a single teacher with, sometimes, one hundred pupils. His observations and investigations are summed up in this book. Dr. Seeley is not so infatuated with the German system that he thinks it could be bodily transplanted into American schools. He admits that German schools have serious defects, but he also thinks that American schools are far from perfect. He thinks that we should be ready to learn from any and every source and if he has awakened suggestions and criticism and invited comparison, leading some one to propose a better plan than is in use in either country, he feels that his mission will be accomplished.

THE METHOD OF THE RECITATION, by Drs. Charles and Frank McMurry. Public School Publishing Co., Bloomington, Ill. The foundation upon which this book is constructed is the fact that the human mind in acquiring knowledge first becomes acquainted with individuals, and through the study and comparison of these arrives at general notions, or universal laws and definitions, and then applies these laws to the classification of new individuals. The activities involved are, in other words: (1) observation, the acquiring of individual notions; (2) generalization, or the discovery of that which is common in individuals, and the formation of classes of things; (3) the testing of other individuals by the definitions and rules thus obtained, and the solution of new problems thereby. The result of this third process is a larger synthesis or body of one's knowledge, and a closer organization of it. This volume is devoted to the discussion of the principles that must govern the recitation and the method of applying these principles to the different studies in the elementary schools. It is a volume of over 300 pages, one-half of which is devoted directly to the process of teaching the different branches. The volume is not a book of devices, but is a serious and able discussion of the end and method of the recitation. It is not necessary to agree with all its psychology in order to agree that the book is practical, suggestive and helpful.

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THEORY OF PHYSICS, by Joseph S. Ames, Ph. D., Associate Professor of Physics, and Sub-Director of the Physical Laboratory in Johns Hopkins University. Cloth. Pages xviii + 513. Harper & Brothers, New York. Price, —. The author gives a concise statement of the experimental facts on which the science of Physics is based, and in connection with these facts, he presents the accepted theories which correlate or "explain" them; in fact, the central thought of the book is the *theory* of the experiments and their explanation in terms of more fundamental ideas and principles. Many of the illustrations are new and all of them are so drawn and arranged as to be exceedingly helpful. The whole field of the subject is covered in a remarkably concise and comprehensive manner. The book is well adapted to junior classes in colleges or technical schools. It is written in the clearest kind of lecture style and the inductive method is kept constantly in view; hence, it is not only an admirable text-book, but also a valuable work for the private student or the public library.

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INDIANA " SCHOOL * JOURNAL

VOL. XLIII.

APRIL, 1898.

NUMBER 4.

SOCIOLOGY IN THE RURAL SCHOOL.

W. A. MILLIS.

During the great labor panic of 1894 a companion remarked to me one day that much of the unrest of the time was due to the failure of the public schools of this country to do their whole duty. He felt that the current educational practice is largely responsible for the prevailing attitudes of capital and labor, of artist and artisan, of rich and poor, of the independent few and the working public. My friend has raised a grave question.

For some thirty years it has been assumed that the essential thing for the school to do is to create a good, symmetrically developed individual. The emphasis in education and politics has been upon individuality for its own sake. There was a time in the history of this country when it was very necessary to preach the gospel of individuality. In the thirties and forties men dared not stand upon their own feet and think for themselves. An intellectual and moral panic prostrated statesman and scholar before creed and greed. The individual was in bondage to custom, to institutions and the demagogue. Courts and legislatures made obeisance at the beck of the slave master. These were the conditions that confronted Emerson the preacher, when first he looked the world squarely in the face; and to the removal of these conditions he gave his life. Emerson was the apostle of individuality; individuality in scholarship, in politics, in religion, in all the relations of man. Transcendental freedom of the individual was the first and last of his message—a message inco-

herent in numerous particulars but coherent in the central proposition of man's inherent self-sufficiency. Emerson was an effective preacher. Our people have learned his lesson well. Our current thought for two decades is decidedly colored with his characteristic spirit. Indeed, so well have we absorbed his spirit and philosophy that we have in many phases of institutional as well as scholastic life rushed to the extreme of individualism. In educational theory especially has this been true. In our industrial life it is characteristic. In religious thinking it is too largely true. The individual is king. Paradox that it is, in the midst of great scientific activity there is an alarming extent of sophistry, in practice if not in theory.

Obviously it is extravagant to charge the schools with responsibility for all the ills resulting from the individualistic tendencies of society, but at the same time the educational public must recognize that the school is designed to be the constructive agency of the body politic, the school of to-day giving form and direction to the society of to-morrow. It works through the growing generation in the formation of the spirit, activities and relationships of the social body. The school is the radical force in the community, giving impulse and direction to progress. In this relation it certainly is responsible for proper adjustment of the individual to the community. Its duty is in the future—the construction of the social life of the next decade.

The mission of the school is to socialize the growing community. This involves the highest possible development of the individual, but requires that this development must be consistent with the social requirements which he must meet. The ultimate end of all school work is to fit the individual for living with his fellow beings in harmony of attitude and effort, and with profit to both parties. It is not its mission to teach arithmetic or geography for the sake of the information which they convey. These subjects have no right *per se* to a place in the course of study. They possess this right in so far only as they help the individual to live properly in all the relationships which he sustains as a member of society. That is, the school must take cognizance of its double function. It is first to be a combination of conditions most favorable to the growth of a healthy, symmetrical individuality—an individuality that enables the child to stand upon his own feet, think his own thoughts, and have cour-

age to give expression to his own convictions. But it must also rise to its duty as the constructive agency of society, conserving the social body, training the individual to right attitudes and to right entrance into his membership in the community. The boy is at once an individual and a member of society. The school must recognize both factors of his life. The individual must be a *man* and a carpenter, or farmer, or what not. Rather he must be a man farming, a man building houses, or writing books. To make the boy over into the man farming is the real business of the school. Our labor is not ended with making the man. He must be set in motion—put to work at something worth doing.

It seems to me that the so-called rural school problem is not economy in the building of school houses and the employment of teachers, nor the grading of pupils; rather it is for the teaching body in the rural schools to take the broader view of the school as a constructive institution whose good privilege it is to mold the future community for truer and fuller living. The real problem is to realize that the common school may be and is of right arbiter of the many economic and social issues of our people. This country's strength rests in the brain and brawn of her great farm communities. We are essentially and must always be an agricultural people. Our future is wrapped up in the farmer boys and girls whom you and I are sending forth from the district school. The new and mighty economic forces that are silently pushing down and through our social system mean that the old order must pass away. The time was when make-shifts succeeded in this country, but that time has passed. The boys and girls of to-day will face conditions that their fathers know nothing of. It is the exalted privilege of the rural school to adjust them to the new order of affairs. It seems to me that the loftiest labor in which you can engage is to send forth from your schools manly farmers—young men and women who will surpass their fathers; young men and women who can farm consciously, who can farm and know what their labor is worth to themselves and the rest of the world. It seems to me that the question of what the farm community of the next generation shall be is of right in your hands to-day. Shall we take this broader view of the school as an agency for giving to our boys and girls such tendency of thought and feeling as will enable them to go out to their farms and really live the life of intelligence and happiness and pros-

perity that is their portion? I believe the time is near at hand when the country school will be recognized. It will be correlated with the social conditions which environ it. It will teach less of cube root and more of science. In the midst of nature's laboratory it will open up to the boys and girls a wealth of fact and beauty that you and I did not see. The future school will teach less of "modifiers of the 3d class" and more of soil and rain and sunshine; less of city life and more of country. Indeed, I am not dreaming when I picture the country school as an elementary agricultural college in which our boys and girls will grow to be men and women farming. I see no reason why a youth shall be a farmer boy until he come into the school room then to become merely "a pupil of the masters" who are in many respects alien to his native life. Why not receive him as a farmer boy, keep him a farmer boy, and send him out more thoroughly a farmer unless he has received a very positive "call" to sell dry goods, or pettifog in a law court, or, shall I say it, teach school? Current pedagogy makes moral character the goal to be reached. But it must be remembered that there is no moral character except the making of good roads, the building of good houses, the weaving of good cloth—moral character is good farming, good manufacturing, good thinking, good inventing, good pictures, good fellowship and good health. The country school develops character when it makes energetic, capable farmers who can farm well and at the same time be more than farmers.

The conclusion of this rather lengthy preface is that the mission of the district school is to organize and promote an ideal farming community—a community in which there is good farming, high thinking, general intelligence, good taste, happiness, prosperity, and good fellowship. The teacher is essentially the community organizer, and in such relation, owes to the boys and girls under his care that he have that broad view of his work which will enable him to place them in position to live the best and fullest lives possible. This goal of the rural school will be largely attained by reorganization in three directions. In the first place, as suggested before, the elements of the science of agriculture should be a subject of study. Elementary science should find a very prominent place in the program. The laws and phenomena of plant and animal life, the process of soil formation, erosion and deposit, weather study, rainfall, drainage and kindred topics

may well receive full and careful treatment with definite application to the work of the farmer. It should be applied science study. The country school can easily give its pupils a very complete training in those elements of science which underlie agriculture. Methods of planting and harvesting, of grafting fruit trees, of destroying pests, of care and feeding stock, methods of marketing, of housing, etc., etc., deserve careful treatment as "*a regular subject study*." In the second place, the country school needs to develop the poetry of country life. To-day we are pointing to Chicago and New York as the centers of interest. We whet the young boy's appetite for the adventures of State street and Broadway. We need to join Col. Parker in unfolding to our children the world of interest and beauty in field and pasture. We must marry them to nature—give them such thought tendencies, such appreciation of the tremendous life all about them, such a sense of the dignity of it all, that the very air of State street and Broadway stifles them. The home that has the good fortune to be visited by one of Col. Parker's Uncle Roberts will never need to urge its boys to stay on the farm. Especially is this true if to this intellectual and spiritual awakening is added a healthy, joyous society life in the community. Too many of our boys and girls leave the farm to find companions.

The third direction in which the rural school must develop if it reach its goal, is in adding to its program instruction in what by common consent we call sociology. If the former is to get the most out of his opportunity and at the same time be of most service to the world he must farm consciously. He must be in proper adjustment to the other factors that go to make up the social body. If he is to assert himself in the social scheme he must know what he is worth to himself and to society; he must know his value as a social factor; he must have a proper sense of the dignity of his toil. But at the same time, in order that he shall not be detrimental to any phase of social progress, thereby injuring himself, it is necessary that he understand the dignity and worth of other forms of labor, of the various business agencies, educational institutions, financial systems and society conventions. If he is to be a good citizen and have the protection of good laws he must understand his personal responsibility in the matter. If he will promote his own welfare and that of his neighbors he must appreciate the significance of the toil of the

scientist in the laboratory and the inventor in his shop. If he would promote industrial stability he must understand and appreciate the worth of banks, railroads, capital, labor and a sound financial system. If he would be happy with his lot he must "get behind the scenes" in the office, in church, in counting rooms, parlor and palace. He must come into a right appreciation of all the social factors and conditions if he would adjust himself to them, use them to his best advantage, and know the value of his own career. I submit that such broad, sympathetic view of the world of affairs is necessary in the making of a man farming, or of a man doing anything. And in view of the great industrial unrest, the many insidious prejudices that prevail, the ominous import of the industrial and social problems that the common people of the country must solve in the near future, and of the fact that the strength of this great republic rests in the harmonious adjustment of all the factors in our social organism, I submit that instruction in the organization of the social body and the relative value of its members is the most important duty of the public school.

I have thought that the following lines of instruction would be feasible and of most profit. *First*, "The Farmer's Relation to Society." The objective in such study would be the dignity of his labor and the social worth of his occupations. Very elementary pupils may trace the various forms of service which he renders. They may be led to see that he furnishes the world's food supply, the raw material for its clothing and most of its shelter. The story of the corn is not complete until the children follow the grain through the elevators to the mill and see the ultimate products that come back to the drug house and the provision store. Nor is the story of the wheat crop, or the apple orchard, or the fattened hogs finished until the child has traced these products through all the processes of manufacture and commerce, and has seen food and labor given to thousands and thousands by the toil of the farmer boy. It is not necessary to go into detail. The teacher will find a wealth of information and interest opened to the child in tracing out the sequel of the farmer's occupation and seeing the contribution he is making to the busy world about him. But he must also see the other side. He must realize the contribution made by the world to him in return for his service. He must know where his wagons and plows come

from, that the coal miner is in part mining for *him*, that the newspaper press is for *him*. He must learn that he and all other men are held in one vast unity the parts of which can not exist alone. He must realize the absolute interdependence of all men and occupations and institutions. By such insight he may rise to a sense of the worth of his calling that will enable him to pursue his toil with the same consciousness that prompted the old shoemaker to make shoes for the Lord of the Universe.

A second line of study of great immediate profit, and certainly of great educative value, is "The Economics of the Farm." Studies may be made of the value of cultivation in general, of different modes of cultivation, of preserving the soil, of waste of resources, of such selection of crops as will insure a certain income on the year's work, of the commercial value of various grains and of different grades of particular grains, and of the farm management of the most successful farmers of the community. Questions of stocking the farm, of the economic importance of proper feeding, housing and nursing of animals are in point. The importance of guarding against disease, pests, weeds, etc., will deserve consideration. The care of machinery, the value of punctuality in planting and harvesting, the importance of marketing in good condition and at most favorable times, and the best time for marketing the various products will be of immense practical value. And, in order that the farmer may manage intelligently, he ought to know the resources of his competitors. He ought to know how the people of other lands farm, the conditions under which they labor, the value and extent of their products, and the effect of variation of their products upon his outlook. A knowledge of wheat growing throughout the world, and of other cereals which compete with it as breadstuffs, will go farther toward making intelligent citizens and practical farmers than the history of Napoleon or of political parties. Human life, however high in the realms of philosophy and art it may reach, must rest on a foundation of sound economics. The feeding of the hungry and clothing of the naked is the beginning of all good things. For this reason the school, in so far as it expects to make good, reliable, productive citizens, must give them a clear insight into the economics of their sphere of life.

The economics of the farm is properly followed by a study of the principles of general or political economy. The more general

economic laws of supply and demand, of property rights, wages, rents, interest, etc., can be worked out concretely and in special application to the farm. The relation of landed and private property to the general welfare, and the idea of the satisfaction of wants as the real test of industrial success, are conceptions very much needed in this country to-day. Especially do we all need to see that all standards of measurement are relative, and must be considered in connection with all the conditions affecting the case. Methods of taxation, the meaning of various tariff measures, the relative rights of the individual and the public, and other related questions may be very favorably studied in connection with the history work of the upper grades.

If we are to train broad-minded men and women it is necessary that they understand the conditions of life in other spheres than their own. The farmer boy must understand the coal miner's life in order to have that appreciation which will insure a proper attitude toward that element of our population. In the same manner he must know as fully as possible how all kinds of people live, the kind of labor required and conditions present in all occupations, the price which people of leisure pay for their leisure, the penalty the criminal pays for his crime. *He must know people*, how they live and toil and weep and rejoice. And likewise he must trace the growth of institutions. He must understand the general character of the primary industries; the work of telephone, telegraph, newspaper, postoffice, express, bank, inventor, capitalist, scientist and scholar; he must appreciate the worth of the great culture forces of this country, socially and economically; finally, he must recognize that in spite of a few rogues and triflers, these social factors are serving the one purpose of advancing the welfare of the whole people.

These suggested lines of work are but a meager indication of the abundant material for interesting and profitable study. It seems to me that the subject offers a culture, a species of wisdom, if you please, that the individual must have to become a *man farming*. It certainly is within reach of the humblest school, and certainly would lift it to that broader outlook that will give truer perspective of its possibilities. It would be an important step in making the rural school what it is designed to be, the organizer of the fullest and best rural life.

Attica, Ind.

HOW TO CULTIVATE THE MUSICAL IMAGINATION.

MARIE RUES HOFER.

[The following is a synopsis of a paper read by Miss Hofer, of Chicago, before the Indianapolis Pedagogical Club. The paper was full of wise suggestions and will be helpful to every teacher of music.]

In relation to our study of music, our first work with the child, is to develop an auditory consciousness—a sensitiveness to tone and its varied suggestion. Out of this grows auditory anticipation and appreciation. We must help our child to *hear* not merely intervals—up and down of pitch—but the effects of high and low, the meanings of single tones and combinations of sounds, which in the aggregate make for musical content. Before we can have content or that which is contained within—a tendency towards “seeing things” in music—“hearing things” in tone—musical imaging and picturing must be encouraged. * * *

We may take for granted that all music that is good is the reflection of an experience of something that has been lived and felt before.

In art, man has been given two themes—nature and human nature. On these he has improvised since the world began. He can rejoice and re-tell the tale of the world of beauty about him, or he gathers up the experiences of the race in universal moods of joy and sorrow, hope, longing, victory and defeat. So was born the lullaby—songs of festival and mourning—the dance, the hymn. Universal feeling and emotion became themes in art.

Rhythm and tone are two fundamental modes of expression. The language of sound and gesture precedes formulated language. Every sound opens a door of consciousness, asks a question and demands an answer. Every tone tells a story; every song is a whole gallery of pictures; every rhythm can be an activity. A song is a history; a musical composition, if a good one, is not only the experience of one man, but of the whole human race.

A great musician, when writing music, not only composes music, but writes his whole life and experience into it. He is not merely fabricating pretty tunes, but takes his life seriously, and what another puts into literature, history, novels, poems, or the arts, form or color, he records in tone and rhythm images. The same elements which make for expression in literature, dialogue, episode, description, comedy, tragedy, passions of life,

picture themselves into the music language in moods sombre and gay, through tones high and low, tonic and chromatic intervals, major and minor modes and in musical terminology, andantes, allegrettos, adajios, scherzos, rondos—dance forms—oratorio, operas. All that is vital in creation furnishes him with themes and motives. The moods of nature—the seasons, the sunshine, the moon, the clouds, the wind, the fluttering of leaves the movements of a butterfly, the flight of a bird, the horn of a hunter, the galloping of horses; forest scenes, songs of birds, the rolling of the ocean, the occupation of man, the march of the soldier, the swing of the scythe, songs of festival and mourning, the lullaby, the dance, the hymn, all these are themes for music. * * *

A timely word can be spoken here on the character of school songs and school music—the quality of the material we use. In the first place we must insist that it shall be of such a character that it will stimulate future musical results—that it shall contain the principles of good art. In school music we have had to struggle between the two extremes—the too prosaic, the mere learning of facts of music, and the too fanciful, pretty tunes, without any reason for being. In the first instance, we killed interest and made the work drudgery, and in the second, we substituted the superficial and sensational for the force and dignity of true music, such as might lay a claim to being an element in character building. Is our subject matter related to a deep and fundamental truth in life, such as will lead out into strong and fundamental lines of action and experience, making for purpose and finalities in human character? What if it be a pretty shell song or a daisy song? What is its value if it does no more than arouse the mere sensation of prettiness in the child's mind? * * *

An experiment was made in a vacation school last summer with children wholly unused to good music, music that says something and has a basis for saying it. After singing music of this class for some time, the children lost all interest in the jingles and sensational airs which they preferred before, because they liked the story songs so much better. These songs were largely on the folk song order, containing healthful thought suggestion on the basis of something real, tradition or past experience, and related to some real doing in their lives. We tried as far as possible to carry out the old traditional thought of song as part of life, which wholly succeeded, though given to children

of our latter day American civilization where song and work have long since parted company. Now it was a nature story, told in a simple, direct way, made interesting through interpretive rhythmic or melodic treatment, often a song or occupation emphasizing some special activity, again a good rousing noise song for the boys where the little savage might have full play in lusty voice and strong accent. A good martial air, inspired more than passive patriotic sentiment for we acted upon the suggestion, we did what it told us to do, marching was made a living thing.

Then songs of home, a vesper hymn which inspired a strong religious sentiment and worked out the art thought in connection with Millet's Angelus. A song which told us of the life of the great musician and composer, Handel, set all the children composing real music with their do, re, me's, in emulation of the great master. So great was the transformation of rudeness and crudeness through this thought-suggesting process of the music work, that a class of the most unruly boys begged every day for Reinecke's delightful fairy story song, "Fair Snow-White Down in the Glen," attuning their rough voices to sweetest quality in order to meet the aesthetic demands of the interpretation. They sang it over and over again for the pure joy of re-telling what had become an experience and part of their lives.

Have we not a mission toward music along the line of appreciation, not always using music as an isolated and unrelated fact, and drumming into the children the creations of other men as something good to be learned for their own sake, but can we not through tradition and story, give a back-ground to our work, and a sense of relationship to the child which shall arouse interest and the desire to pursue music as he does history for the sake of knowing how the story comes out instead of mechanical practice? Like literature, the moods of music lie deeper than its outer form. The child is more interested in the thought than in the vocabulary through which it is expressed. Will not a related presentation make these music stories lasting and inspiring influences in a child's life? Then will the folk-song, the folk lore of music, the life of the composer and his time, the historical setting of music become his wonder-book and the song with a history and a purpose, his lasting inspiration. (At the close Miss Hofer pre-

sented a series of songs such as could be sung by children, illustrating the ideas set forth in the paper.)

OBSERVATION AS AN AID IN TEACHING.

C. E. SMITH.

It seems that the American people are given to riding hobbies, and the teaching force keeps up its reputation along this line. This is due, no doubt, to its marked energy and zeal. At present, its hobby is "Method in Teaching."

This hobby is a good one, not only from the hobbyist's standpoint, but from the standpoint of the school, for we need better methods in teaching right here in Indiana. But are we making use of the best means of securing them is the question I wish to discuss.

At present, the principal helps along this line are the Normal School, the State, County and Township Institutes and the various school publications. What we secure from these sources is, of necessity, very largely theory. It seldom has present the main element in the teaching process, namely, the pupil. Real teachers are told how imaginary pupils should be taught in an imaginary school room. Is it not so?

Now I am not about to say that we are going to seed on Teacher's Institutes and the like ;—that most that is said there is all bosh, not at all. Not *less* of this thing but *more* of something else is what I am contending for.

At present, it is one of the accepted principles of good teaching that the pupil who is to learn and the thing that is to be learned shall be brought face to face. If it is impossible to produce the real object, then a good picture of it is the next best alternative. It took us a long time to learn that almost every school is surrounded by the elements at least of those things which make up our text books. The creek that, perchance, ran just back of the old school house was totally ignored as a means of giving the pupils an idea of the river, and, instead, they were taught to look with wonder at the heavy dark line crossing the map of the United States which marks the course of the distant Mississippi. The promoter of nature study caused the scales to fall from our eyes so that we are enabled, now, to see these things all about us.

But if we lived on the banks of the great "Father of Waters" we would be very unwise did we not utilize it in the study of rivers instead of confining ourselves to mere pictures of it. The live teacher would make excursions with her pupils along its banks and discuss it in its immediate presence.

Now is it not strange that we give assent to this sort of thing, but, in the matter of acquiring better methods in teaching, we travel the old road? We meet and theorize in the same room where yesterday there was a real school. We live, as it were, on the banks of the Mississippi and yet we choose to turn our backs on it and theorize about its width, rate of flow, etc. Not only this, but we pay learned men to come and spend a day or even a week in theorizing for us about it. We make annual pilgrimages to some famous art gallery (our Normal Schools) to see a picture of it and to take an imaginary ride on its peaceful current. Do you not find it quite a different task to row your own real boat up a real Mississippi? Would it not be a more helpful thing, after you have been made aware of your weakness, to spend a day or a week with your neighbor who is rowing the same sort of a boat up the same river? You could see just how she dips her oars, how the stroke that propels is given and how deftly the boat is guided when the waters are disturbed.

This is what a day of observation in a neighbor's school means to the energetic teacher. If her visit be a fortunate one, it will prove as surprising as a view of the Niagara after having heard and read about it for years. The great miracle of teaching is in bringing the pupil and the subject together and for this no amount of theorizing will take the place of wise observation in our public schools. To learn well the art of teaching we must observe while some skilful hand applies it.

If it were necessary to visit New York state to see this sort of thing I would not be making this feeble plea but, seeing we have schools all about us, I wonder why we do not make use of them as we would the Rockies were we studying mountains in Colorado.

Now school officials either fail to see the importance of this thing or else, seeing it, they are hindered from acting according to their convictions by the old notion that teachers are already too well paid and so deem it their duty to keep them at their post every minute of the school day and every day of the week.

Meanwhile, it is a hopeful sign that some of our best city

superintendents make a practice of spending a few days each year with their corps of teachers visiting the schools of some neighboring city.

But the country teachers need this sort of work most. At present they have almost no chance to observe what their fellow teachers are doing and so go on year after year with no other model than that which their own best efforts give them. How easily, too, this want could be supplied. Let each county furnish a substitute teacher whose business it should be to take the place of some one of the regular teachers whom the superintendent might choose to take with him on his tour of inspection for the day. Of course the work of the substitute would be difficult and, therefore, he should be a most skilful teacher procured, if need be, at extra wages. The benefit would far outweigh the cost, for it would enable the superintendent to give incalculable aid to his teachers in strengthening the weak points of the new ones and in correcting the faults of the old ones. It would not only be the means of making the good plans and ideas of the superintendent and teacher common property but it would create a spirit of emulation throughout the county and would eclipse the work of the monthly institute so far that there would be little chance for comparison.

I have been led to make this plea for the teachers partly because, in my own experience, I have felt great need of an opportunity to observe what others were doing and partly because I am, at present, doing seminary work under Prof. E. B. Bryan, of the State University, which, I think, more nearly satisfies this need than any work now offered by any institution in the State. Our work consists in visiting the public schools at Bloomington, under his leadership and in having a formal discussion of what we have seen and heard, led by some member of the class. We are permitted to do this through the courtesy of Superintendent W. H. Fertich and the Bloomington School Board.

It is the purpose of the pedagogical department to have this work reach out to other cities of the state and, judging from the interest and satisfaction evinced by the present class, we see in this new work another drawing card for our already popular State University.

Bloomington, Ind.

SUN SPOTS.

R. C. HILLIS.

About every eleventh year the sun is covered to a greater or less degree with black spots, varying in size from those requiring telescopic aid to those easily seen with the naked eye. The maximum period is about six years, then they gradually die away, and for about five years there are comparatively few seen. But the period is not absolutely fixed as you may see from the following dates of the period of minima, 1810-1823-1833-1843-1856-1867-1878, and the period of maxima is 1816-1829-1837-1848-1860-1870. The last minimum period was in 1889, so another is due in two years. Now while this is the time of the least number of spots there may be some, and as the period of minima appears to be delayed from some cause or other, this time should be a fruitful one for observation.

The size of the spots varies greatly. It can not be known, of course, just how small they are, as there is a limit beyond which even our glasses can not go. When first seen they are generally very active and increasing. Probably good eyes could see one with a diameter of 25,000 miles while one 30,000 miles across should be easily visible. Such a one, however, would be a large spot rather than a small one. Spots often occur in groups and many of these have been seen with a diameter of 100,000 miles or more and single spots of 50,000 miles diameter are not unknown. Remembering that our continent has a length of about one fourth of a spot visible to the naked eye we get some idea of the magnitude. If we could take up an ordinarily large spot as we would a blanket there would be enough of it to wrap up the whole earth and some left over for the moon. Spots the size of a state would be comparatively insignificant. Though many are large enough to be visible to the naked eye, the details of their structure are apparent only by the aid of the telescope. There is a central portion, the umbra, black in comparison with the neighboring body of the sun, whence its Latin name meaning shadow. Surrounding the umbra is the penumbra, bounded by distinct lines. Indeed in the spots there is no gradual shading off but plain, evident boundary lines. From observations made on a large number of spots it seems that they are depressions in the

sun's surface, the umbra being the bottom of the cup and the penumbra the sloping sides. Spots are not enough alike to make this apparent in all cases but from a great number of observations the above generalization has been made. There is no regular form assumed but the drawing made by Langley of a spot observed by him in 1873, is generally given as a typical one. However the great variations in form will not permit the selection of a definite shape. Some are oblong, some oval and nearly all vary in form at different stages of their life.

The spots are not distributed equally over all portions of the sun. They seem to be confined almost wholly to that part of the sun that corresponds to the Torrid Zone of the earth. The manner of their arrangement is an important factor in all theories of their nature and cause. A theory accepted by many at present is that they are pools of the heavier and cooler fluid of the sun, sunk into the main body through their greater weight, and emitting less light than the more intensely heated parts. A theory held quite a good many years ago was that the spots were simply openings through two outer shells or coverings of the sun, the main body of which, according to this theory, was supposed to be habitable. The nature of the spots, when better known, will probably explain their distribution and their cause. At present we have no satisfactory theory of their cause. At first some thought the spots to be bodies revolving closely around the sun. Others thought them to be the result of solar volcanoes. A theory that has several supporters at present is Faye's cyclone theory. The atmosphere of the sun acts in the same way as does that of the earth, and vast whirls in the upper regions might produce depressions at their vortices sufficient to cause the spots. That theory is open to the objection that only a small number of the spots show any evidence of the whirling motion they should have. Young's theory is that they are caused by a diminution in the upward pressure from below, caused by eruptions in the immediate neighborhood.

Aside from the theories mentioned, there are many rather remarkable ideas held as to the connection of the spots with various phenomena here. It seems to be well established that there is some connection between the spots and magnetic storms, and with the variations of the compass needle. The curve of periodicity of the spots corresponds almost exactly with the curve of

magnetic disturbances. Some have claimed that the spots influence terrestrial temperature to an appreciable extent but the evidence is not very conclusive on this point. If this is true then the claim that the spots influence the financial conditions of the world has some foundation. Even much abused wheat has had a comparison made between its scale of prices and the number of spots visible.

Though this is a period of minima and many spots are not visible yet this whole period seems to have spots of more than the ordinary size. Those fortunate enough to be near a telescope may have a chance to examine some spot at their leisure and for the others it may be possible that opera-glasses and smoked glass will reveal to them at least some of the wonders of our god of day.

Bloomington, Ind.

DEPARTMENT OF PEDAGOGY.

HERBART'S DOCTRINE OF INTEREST.

MRS. LOIS G. HUFFORD.

In the concluding lines of Chaucer's description of the Oxford student, we find a true ideal of scholarship :

"Sowninge in moral virtue was his speche,
And gladly wolde he lerne, and gladly teche."

The American teacher, as it seems to me, has practically adopted this ideal, for he shows himself ready to sit as a learner at the feet of whoever has anything of value to teach him concerning the principles and practice of his chosen profession, that he may, in turn, apply these ideas in his own teaching.

To this habit is due the lively interest on the part of American teachers in the pedagogy of Johann Friedrich Herbart, whose views upon the science of education have strongly impressed themselves upon a large circle of thinkers in Germany and England.

So great is the interest aroused on this side the water that it has led to the formation of "A National Herbart Society" which was organized in 1895, in connection with the meeting of the National Educational Association. The purpose of this society,

as announced in its constitution, is "to study and investigate and discuss all important problems of education."

While, as its name implies, some of its members subscribe to the educational doctrines of Herbart, it seeks to secure fair and thorough discussion, and no member is asked to commit himself to any set of doctrines. It desires to draw into its membership all persons who wish to keep abreast of the best thought upon educational problems.

Although some eminent teachers of philosophy deny to Herbart the right to be ranked as a philosopher, his title to a master's degree in the sphere of pedagogy cannot, I think, be justly disputed. He is regarded by some as the founder of modern psychology. He was, moreover, a practical teacher and a teacher of teachers.

Very likely some may be inclined to object that there is nothing new in the teachings of Herbart; but I think that with him, as with other educational reformers, it is his emphasis of certain acknowledged principles which arrests the attention of students on education, and thus ensures a true measure of their value, that gives his doctrines such prominence in the educational world to-day. He has thrown the flash-light of incisive thinking upon a few fundamental principles in education, and in so doing he has made practical teaching his debtor.

In 1799, Herbart visited Pestalozzi in his school at Burgdorf. From his comments upon Pestalozzi's manner with his pupils, we may infer his own conception of the ideal teacher. He says: "Why does Pestalozzi give so much to be learned by heart? Why does he seem to have chosen the subjects of instruction with so little consideration for the natural inclinations of children? Why does he only allow learning, never talks himself with the children, never chats, jokes, tells stories to them? Why is everything which might mitigate the seriousness of school life here scornfully banished? How is it that he, at the first glance such a friendly, lovable man,—he who greets everything human with such gentleness,—how is it that he, amongst the children who possess his whole heart, no longer pours forth joy, no longer combines the pleasant with the useful?"

In these words of Herbart, penned when he was but twenty-three, we may discover his early conviction of the necessity to the best teaching of the practical application of the fundamental prin-

ciples which he so strongly emphasized,—apperception and a many-sided interest.

Herbart's doctrine of interest is deeply-rooted in the soil of his psychologic pedagogy. It is that doctrine which is the special topic for consideration in this paper.

With the disagreements of the doctors concerning the philosophic theories of Herbart we need not here disturb ourselves; we are chiefly interested in their pedagogical application. In order to discover their practical bearing, however, it is necessary to examine the theoretic principles in which his pedagogic practice is rooted.

The basis of Herbart's Science of Education is ethical: he holds that the whole aim of education is morality, by which he means the development of constant habits of right willing; not a code of expediency, or any external mode of action whatever, but the development of true insight accompanied with corresponding volitions. Such will-training, according to Herbart, is to be accomplished, not by direct, but by indirect means.

The Herbartian psychology finds the mainspring of acts of will in the desires; these, again, are traced to their origin in interest, and interests arise from concepts of knowledge. Therefore what one knows will determine what he desires and consequently what he wills. The term which Herbart uses to express his ideal is *Inner Freedom*. Whoever looks within is conscious of a struggle between two wills, one commanding, the other resisting, or, at least, objecting. Whenever the resisting will yields obedience to the commands of the higher insight there is peace,—spiritual harmony. To establish this inner harmony is the real aim of education; or, in other words, the formation of character. As Plato expresses it, "it is the attainment of the highest perfection of body and soul of which one is capable."

Since upon the educational ideal must depend what means are employed towards its realization, an understanding of the methods and processes of the mind's action is essential to the educator.

If character-forming is will-forming, and the ultimate object of education is to develop an enlightened will by which right judgments resulting in right choices shall become habitual, then a knowledge of the conditions which determine the genesis of acts of willing is indispensable. According to Herbart, the primary condition of choice is desire,—one desire becoming so strong that

it inhibits, or suppresses other desires; but desire is itself conditioned upon interest.

Teachers sometimes say that they wish to create an interest on the part of their pupils; but the real task is not to create but to direct interest; for children have many interests before the work of instruction begins. Herbart distinguishes original interest as of two kinds; *receptive interest* and *investigating interest*—the former does not necessarily lead to action; the latter creates desires which eventuate in volitions. Such interests are educative because they may be guided into channels of morality. Just here some discrimination should be made.

A mere excitation of feeling that ends with the emotion is not an educative interest. Again, interest is sometimes mistaken for a feeling of pleasure, whereas a feeling of pain or even repulsion is often attached to that which occasions interest. Some have made the mistake of supposing that the prominence given to the doctrine of interest in Herbart's pedagogy is merely an insistence upon such a presentation of the material of instruction on the part of the teacher that it will excite a pleasurable feeling in the pupil. On the contrary, the development of interest as an educative force has to do with motives which shall determine conduct, for interest should be not merely an accompaniment of instruction; it should be the consequence of instruction.

To this end, the interest that education should generate must be immediate *i. e.*, the pupil must not study simply for the sake of gaining high rank, or to secure the teacher's good will, or even to please his parents.—these are incidental motives. Immediate interest works from unalloyed devotion to the subject of study, and finds its reward in the knowledge acquired, the sense of increased power, the joy in successful effort. In order to develop and sustain this immediate interest, Herbart would have teachers show their pupils what is the aim in any given subject of study so that each step in the instruction may be seen to be a means to a desirable end, and, therefore, may excite immediate interest.

The following illustration cited by one of the commentators upon Herbart's theory shows clearly how carelessness, and even seeming stupidity, is really due to the fact of total want of interest because of an inability to discover any connection between the effort required and the child's own interests. John, who was

naturally clever but heedless, suddenly developed an active interest in mathematics. The steady improvement in his marks led to an inquiry into the cause, whereupon it was discovered that his improvement was limited to mensuration. Still further inquiry narrowed the gain to areas of segments of circles, but finding that these could not be understood without a comprehension of the earlier steps, John asked and received permission to go over all the preceding work. In three weeks, he had mastered half the principles in Todhunter's mensuration, and was very eager to advance to a study of volumes of spheres. Among the other teachers, none had a good word to say for him except the science master, who reported that John had developed a violent interest in chemistry, and was showing leanings toward volumetric analysis.

Investigation revealed that John was engaged in the attempted manufacture of a gigantic balloon. To learn how to cut the gores drove him to mensuration; to calculate how much zinc and sulphuric acid were necessary to float his balloon with hydrogen had sent him to chemistry. Balloon-making did not make either mensuration or chemistry easy; it made them interesting. In other words, an immediate interest in the studies was excited as a means to a desired end.

A wise pedagogy will make such a connection between studies and life that interest will unite with desire to prompt to effort. The sooner all teachers learn that catechising is not synonymous with instruction, the better for education. Questioning must be so directed as to develop an apperceiving interest, if the recitation is to accomplish its appropriate end. It is unfortunately often too true, as Prof. Dewey remarks, that our methods of instruction crush out all spontaneous interest.

Tendencies to one-sided interest often manifest themselves; it is a province of education to counteract these natural tendencies. The faults of narrowness and one-sidedness arise from an excess of interest in some one direction, and it is the duty of instruction to restore the balance. If, for instance, environment inclines a pupil to greater social than individual interest, instead of thinking, as some have thought, that these tendencies should be strengthened by education. Herbart maintains that the weaker sympathies should be fostered, and the stronger reduced to a normal proportion. People of one idea are occasionally useful;

but social harmony demands that the individual members shall be well-balanced. To secure an all-rounded, symmetrical development, a many-sided interest should be awakened. Many-sided interest does not mean an interest in many things: rather it means a manifold interest in the same thing.

Herbart discriminates many-sided interest as, *first*, the interest of knowledge; and, *second*, the interest of sympathy. Each of these manifests itself in different aspects. Knowledge derived from observation and experience may excite an interest in the variety of forms and phenomena. This is termed *empirical interest*. The study of nature and of history leads to questioning and reflection concerning the causes and conditions of events and phenomena. This method of mental activity is distinguished as *speculative interest*. He who joyfully observes the various aspects of a landscape manifests an empirical interest; he who seeks to discover how these earth-forms were brought to their present condition has a speculative interest.

Again, observation may arouse a sense of the beautiful, thus giving rise to *aesthetic interest*, another expression of the interest of knowledge.

Intercourse with fellow-men develops *sympathetic interest*, by which the feeling of the joys and sorrows of others is repeated in ourselves. It is because this sympathy needs to be cultivated that we are commanded to "rejoice with them that rejoice," and to "weep with them that weep."

If the sphere of this interest is enlarged through a sympathetic participation in the good or ill of fellowmen at large, *social interest* arises. The final expansion of interest, in Herbart's view, is reached when reason recognizes the fact of a divine order in the movement of humanity, inspiring reverential awe; this he denominates *religious interest*.

Herbart maintains that it is the duty of education to develop this many-sided interest because,—“In the many-sidedness of interest, the pupil is by-and-by to find moral anchorage and protection against that bondage which springs from the desires and passions; it shall guard him against all those errors that are the consequence of idleness; it shall arm him against the vicissitudes of fortune; it shall reconcile him with life again when a sad fate has robbed him of his dearest; it shall let him find a new vocation, when he has been crowded out of the old one; it shall

elevate him to that point of view from which all earthly possessions and all earthly endeavor appear as something incidental, by which our real self is not touched, and above which the moral character stands sustained and free."

Many-sidedness, according to Herbart's view, is never fickleness or frivolity. Like the sun's rays emanating from a centre of life and light, it radiates from a central unity—that of personal consciousness. It is the task of education by developing a many-sided interest, to help the individual to find himself in the world of nature and the world of ideas.

In the realm of education, the means largely employed to aid in bringing about this self-realization is instruction. Aside from this, experience and intercourse with his fellows are the chief means of development; but these factors are necessarily subject to rigid limitations of space and time. If the child is to enter upon his rightful inheritance, these must be supplemented by instruction; for the most advantageous environment is bounded by the present. Instruction is the key which unlocks all doors to the mind, the past and the distant, as well the near-at-hand and the life of to-day.

Herbart maintains that the material selected for purposes of instruction should be such as may give rise to a radiated interest that shall sweep the horizon circle of life. Upon this his disciples have based their theories concerning what are known as culture-epochs.

We all have sometimes found both experience and intercourse wearisome; but the pupil should never be compelled to suffer this from a teacher, for the cardinal sin in instruction, as Herbart says, is to be wearisome. Therefore he would sentence to eternal banishment from the schoolroom those teachers who "have been pleased to take up the business of education and the companionship of children, only because everything else was too lofty or too serious for them."

It is sufficient for our present purpose merely to allude to the "five formal steps" by which, according to Herbart, the material of instruction is to be apperceived and assimilated. "When instruction has generated knowledge that incites to volition, and that is controlled by ethical ideas," says Herbart, "its task is done;" but the work of education itself reaches farther, since its aim is to bring the human being into ethical harmony. It is a

part of Herbart's doctrine that government and moral training are the lever arms whose function is to control and direct conduct.

Some teachers seem to believe that government is an end in itself; their ideal school is one in which the children, coerced by the oppressive power of the teacher's will, are overawed into repression of all spontaneous speech or movement. Such is not Herbart's view. He holds that government is only a means to an end: its purpose is not to form character, but to secure conditions favorable to character-forming. Therefore, he would not begin with the absolute "shall," but through love of the highest good, would endeavor to develop that love in the children.

Very few childish acts of what is termed disorder spring from a bad will. They are, for the most part, expressions of a superabundant energy for which no suitable outlet has been provided. An understanding of, and due regard for, the needs of the child's physical organism and the limits of fatigue, joined to such a conduct of every exercise as makes it interesting, will prevent the restless moving about which often becomes so annoying. The children's interests are numerous; and unless the teacher is skillful enough to divert these into what, for the school, are legitimate channels of interest, the child's desire will overleap all artificial, arbitrary restrictions, and put him out of harmony with the social order to which he, for the time being, belongs—the school. The responsibility for this disharmony Herbart refers to the teacher, who has failed to supply, providentially, the proper environing conditions. For it is his opinion that, "It is the task of immediate character-forming to place the pupil in such situations and to open to his interest such opportunities as will enable him to act with success in accordance with his own thoughts."

We may profitably consider what would follow a wide-spread, intelligent adoption of Herbart's doctrine of interest as a basal principle in class-rooms of all grades. In the first place, drudgery would be eliminated. Not that learning would become easy—application and intense mental effort must always be the conditions of great attainment,—but the unwillingness and half-heartedness which constitute drudgery would disappear. When the whole being is aroused to effort for an end which seems desirable, there is joy in labor.

In his discussion of the question of "Interest as related to will," Dr. Dewey has shown clearly that the neglect to make a

lesson interesting often forms pernicious mental and moral habits on the part of the child. While he is engaged in the monotonous repetition of memory exercises, the pupil is often far away in thought, straying in fields of his own interests; thus habits of divided attention are formed. "Externally," as Dr. Dewey says, we have mechanical habits with no psychical end or value. Internally, we have random energy or mind-wandering, a sequence of ideas with no end at all because not brought to a focus in action."

I have found no better illustration of the Herbartian idea concerning the relation between interest on the one side, and the pleasurable and the painful, on the other, than in these words of Romola: "We can only have the highest happiness by having wide thoughts, and much feeling for the rest of the world as well as for ourselves; and this sort of happiness often brings so much pain with it that we can only tell it from pain by its being what we would choose before everything else, because our souls see that it is good."

In the second place, the application of this pedagogical principle provides for the manifold interests of children by giving them a variety of mental pabulum. Just as in the physical world, the vegetable organisms act as the mediators between the stomach of man and the inorganic food materials, so the food for the mind must be prepared and made palatable if we would have genuine assimilation. One condition of such assimilation is to see what is to be learned in its own natural surroundings. Latin Grammar need not be a mere study of dead forms but will be instinct with living meaning if interest is awakened by an acquaintance with the old Romans. Recent "First Books in Latin" are planned in accordance with this principle. If the study had been seen to have a meaning in itself, the sarcastic comment of the schoolmaster upon Caesar would have remained unspoken: "Caesar was a man who wrote a very good school-book, which would have been excellent if only it had been better graduated."

Thirdly, the doctrine of interest is opposed to the presentation of concepts in isolation; preparation for grasping a new idea must be made by recalling what related ideas have already been acquired; i. e., the new must be apprehended by placing it in its true setting. Wherever this is applied in practice, mechanical

reviews will be entirely unnecessary, and cramming will become a lost art. In my opinion, there is no teaching habit more philosophical and more destructive to the formation of right habits of study in pupils, than that of confining the daily recitation to the advance work assigned. Every lesson should be a review lesson if we expect what has been acquired to be retained. By this I do not intend formal reviews, but incidental recalling of what has been previously learned. It is certainly true that "clear apprehension, coupled with the repetition that comes from close and frequent association, will ordinarily fix knowledge securely in the mind." This is said to account for the fact that German children remember so much history and geography and mathematics without the use of books.

Again, the moral effect of the application of the doctrine of interest is evident. Obedience, to be truly ethical, must spring from a recognition of the innate right of the command. There is no more unsound ethical doctrine than the assumption that the commands of a superior are in themselves moral, and therefore to be unquestioningly obeyed. Authority which does not base its requirements upon love and reason is pure despotism; and human nature in the child will naturally rebel against what it considers injustice. Commands which are the outgrowth of a just regard for interest will not arbitrarily thwart the child's natural desires for—

"Who overcomes by force
Has overcome but half his foe."

Conflicts of wills will be done away with where interest is properly considered. In this connection, I wish to quote: "The child's individuality should be left untouched as far as possible. To do this, it is absolutely necessary that the teacher should discriminate his own peculiarities; he should carefully observe the occasions when his own wishes and his pupil's actions do not agree, and there is no intrinsic preference for the one or the other. In such cases, his own wishes must at once give way, and their expression must be suppressed as far as possible."

The warning,—*"Do not educate too much,"*—arises from the mistaken notion of some that that is good, which to the child seems an evil. Teachers should refrain from using their power to destroy the cheerfulness of pupils by oppressive domination.

Herbart would have the schoolroom a place of happiness and

social harmony. He would allow the children to express themselves freely concerning their own personal interests. He would make the recitation a conversation instead of a catechising. It is most desirable for the teacher to get his pupils' point of view that he may efficiently influence their growing opinions. To do this, he must be interested in what interests them, and must encourage freedom of expression within bounds.

In Wordsworth's immortal "Ode," a graphic picture of the child's continually varying interests is drawn. As this or that claims his heart, the little actor cons another part—

"As if his whole vocation
Were endless imitation."

The rhythm of interest, as well as of everything else, must never be left out of account in the schoolroom economy. It has been well said: "The teacher who requires his pupil to be at his best all the time, never gets his best out of him at any time."

Educational advance must always depend upon the wise adaptation of right ideas to existing conditions. Over-zealous disciples often bring the best principles into disrepute by slavish imitation or a failure to comprehend the master's whole meaning.

Froebel's doctrines have sometimes been woefully misapplied; but, corrected by the new psychology, and adapted to conditions in America, they are steadily progressing toward true realization. So it is with the teachings of Herbart. Educational experimenters may, by want of judgment, make serious mistakes in the attempted application of his theories; but so far as they are proved of worth in practice as well as in theory, all the forces that make for the realization of the true in education will combine to effect their general adoption.

A significant testimony to the rightness of Herbart's doctrine of interest is the fact that Dr. Harris, who, for a time, violently attacked this doctrine, pronouncing it educational heresy, now admits its essential soundness. He acknowledges that "subordinated to the higher principle of the attainment of rational perfection; the discovery of the Divine as the final end of human endeavor, the doctrine is rational." This is as Herbart himself intended it should be, for he steadily maintained that interest is a means to the end of perfect self-expression.

The final outcome of the employment of interest as a means in education should be, as Herbart makes plain, the development

of sustained interest in the great world-order. This idea is thus expressed by Dr. Dewey : "Is not the day ripe to ask ourselves and ask the community whether the ultimate responsibility is not to provide the school with the materials and instruments for utilizing the child's present interests in outgo, in construction, in expression, that he may attain to the deeper and more permanent interests?"

If Herbart's doctrine of interest is in accordance with nature's law in the development of mind, no opposition can prevail against it ; for ideas which are vitalized by truth will survive all attacks. Dr. Rein claims that Herbart has rescued public education from the hands of chance and woven it into a rational system in which the education of the will is the main object. He says : "By deriving its objects from ethics, modern education obtains an aim that is morally necessary—an aim which will not change under the wavering opinions of good and evil, one which will not follow fashionable philosophy blindfolded, but out-lasts the times, because it comprehends that which constitutes the true value of man's life and points to an ideal which in its sublimity rests upon itself—the ideal of virtue."

LEND A HAND.

(This department is conducted by Mrs. E. E. Olcott.)

*"Look up and not down,
Look forward and not back,
Look out and not in;
Lend a hand."*

COMPLETING STORIES.

An excellent device for giving variety in written language is to read part of a story to the class breaking off at some interesting point and directing the pupils to draw on their imagination to complete the tale. Each finishes the story according to his fancy, then the teacher reads the rest of the story. Sometimes a chapter or two may be read from an interesting book, the pupils to write a conclusion. This plan seldom fails to create a desire to read the book to see how it really does end. The following story will serve to illustrate the plan ; it is a condensed reproduction of a Christmas tale called

THE GIANT EVERGREEN.

The tiny cottage on the hillside was all complete the day before the wedding. Richard Grant had suggested to Meg that they christen their home by being married in it.

So the morning sunshine, streaming through the cottage window, rested on the heads of the sturdy young lumberman and his pretty bride like a benediction as the minister pronounced the solemn words, "Whom God hath joined together let not man put asunder."

That afternoon Richard and Meg took a long walk to where young evergreens grew thickest. They merrily called it their wedding trip. They selected the thriftiest young evergreen and Richard planted it near their cottage window. The swiftly passing years blessed the tree and the inmates of the cottage with health and strength. A little Meg and Richard came to the home, and then tiny Alice, a frail invalid, joined them.

Pennies were few and needs were many; there was hard work and self-denial, but their hearts were light and the home might have been called "Sunshine Cottage" so bright were the faces looking from the windows and playing by the evergreen. David was a baby when word came that Aunt Meg was fatally ill and wished to see her name-sake niece before she died. Richard drew his small savings and accompanied wife and children to the aunt's distant home.

"Meg, dear," said the dying woman, "I sent for you because I wanted to know beyond a doubt that you received my last gift to you." The gift was a small canvas bag containing, in gold and bills, one thousand dollars.

After the funeral, Richard was compelled to return leaving wife and children to follow in a few days. Meg gave him the canvas bag of treasure, saying urgently, "Please put it in the bank. I could not rest if I thought you had it at home for fear robbers might kill you to get it." "Never fear," he replied gaily, "I'll put it in a safe place." Two days later, a telegram called Meg home. Richard had been terribly injured by a falling tree, and his life was despaired of. Finally, he rallied and strength and health returned to his body but his mind was like that of a little child. The money was not in the bank nor could any trace of it be found. In vain Meg knelt beside her husband and plead, "Richard, dear Richard, can't you tell where you put

the money?" He would only smile, pat her cheek, and say, "Pretty lady, don't cry. Richard sorry for you."

Long hard years followed in which Meg toiled day and night to keep her little flock together. The tree grew so tall with such wide-spreading boughs that it was known all the country round as the giant evergreen. All the family loved it. Pale, patient Alice spent happy hours watching from her couch by the window the birds in its branches. The mother loved it for the memory of the happy time when it was planted. Even the afflicted father seemed fond of it and often embraced its trunk affectionately. As the children grew older they earned many a dollar filling orders from the city for Christmas evergreens. Their deft fingers fashioned wreaths and prepared yard after yard of evergreen to be hung in graceful festoons in home, and hall, and church at holiday time.

Just before Christmas, ten years after the accident which had virtually robbed them of their father, the Grants received an exceedingly large order. All were at work, even Alice was tying tiny bunches of evergreen ready to be bound upon a small cord. The sound of sleigh bells caused young Meg, now a bright girl of seventeen, to glance through the window and remark, "I wonder why Geraldine Royce gazes so at our house every time she passes lately. I declare the sleigh has stopped at the gate and she is beckoning to me."

Judge Royce's handsome summer residence was a mile beyond the Grant's humble cottage. This year, the Royces had invited friends to celebrate Christmas at their country house. Geraldine, a lively young girl, had resolved to have a Christmas tree which would eclipse anything her guests—especially her cousin, Percy—had ever seen. Percy, she declared, could always tell of something nicer than anything that could be shown him, and she would like to have a Christmas tree larger and handsomer than he had ever before looked upon. So she had set her heart upon buying the giant evergreen.

"Look, Papa," she said, as the sleigh drew near, "isn't it perfect? Won't it make an ideal Christmas tree? Mayn't I buy it to-day?" So with his consent she had beckoned to Meg at the window.

"I want to buy your evergreen," she exclaimed impulsively, "I want it very much and am willing to pay well for it."

"Oh no," replied Meg, "mother would never part with it. My father planted it on their wedding day and we all love it. Mother has refused \$10 for it."

"I will give you \$25 for it," said Geraldine, "don't decide now, but let me know within a week." The bells jingled merrily again as the sleigh sped on, and Meg walked thoughtfully back to the house.

[Complete the story from this point. Try to write it so that, if you read the whole to some one, he could not tell where your part began.]

ENLARGING SENTENCES.

Sometimes in reproducing stories, pupils are told not to adhere to details but to embellish the facts given; for instance, a sentence in the story might be, "A little dog sprang at the boy." The pupil would be commended for rendering it: A large, black and white Newfoundland dog sprang at the little boy, seized him by the coat, almost tore it off and left the marks of his cruel teeth in the child's shoulder. Now a reproduction story is supposed to be reproduced, re-told from memory. The pupil did not *remember* that the dog was black and white, that it tore the boy's coat and bit his shoulder. He "made that up." Since it is sometimes difficult for even grown people to repeat things exactly as they had heard them, it might be well to beware of having children add variations and embellishments to given facts, except in certain exercises. Rather train the memory to reproduce the points faithfully. Let the imagination be exercised by completing stories, or by enlarging sentences or short stories. Enlarging a short story is *akin* to writing from a full outline.

To illustrate, a bare statement, as, "A girl found a kitten," may be written on the blackboard, and the pupils directed to enlarge it. One version may be, "A curly haired little girl found a poor blind kitten on the railroad track." To embellish facts in a reproduction story, and to do the same thing with a sentence or story placed before the pupil to be enlarged may seem almost exactly alike. But there is this vital difference. In the former the pupil soon becomes unable to distinguish between what he *remembers* and what he "makes up;" while in the latter, the sentence or story to be enlarged is before him and he consciously

bends his energies upon using his imagination. He sees what was given him and what he adds to it. There is nothing to confuse the memory.

DESK WORK.

Complete the following, making one or more sentences :

1. After school Fred exclaimed, ———.
2. A little girl was playing in the yard, when suddenly she ran to the house because ———.
3. An eagle flew from the woods and ———.
4. Some violets grew in a shady spot ———. (What became of them?)
5. His mother told Tom that for half a day he might do whatever he pleased. After thinking awhile he decided to ———.

Enlarge the following sentences :

1. A girl found a kitten.
2. A boy rode a horse.
3. The mule belonged to a circus.
4. A picture was in the book.
5. A girl stood in a boat.
6. A bird flew from the tree.

Example: (1) A curly haired little girl found a poor blind kitten on the railroad track.

ILLUSTRATE THE MEANING OF WORDS.

Another good exercise in the language work may be called illustrating words. A word is assigned and the pupils are to give an incident which makes clear the meaning of the word. The following stories by pupils will illustrate the plan :

A STORY BASED ON THE WORD COURTEOUS.

Once there was a boy playing games with other boys. One of them hit him because he did not play right but he would not hit the other boy back. Once this boy was in a car and an old gentleman was walking around trying to find a seat. The boy got up and said : "Take my seat." The man took it and asked him why he gave it up. The boy said : "You are old and I am young." He always raised his hat to young girls and ladies.

He always said "Yes ma'am" and "No ma'am" to those who spoke to him. He was always courteous.

HILDA TEEPLE, (9 yrs.)

COURTEOUS.

There was a little boy who was going along the street when he met ladies he would raise his hat. When he went to concerts and the house was crowded and when any ladies were hunting for a seat he was courteous for he would give his seat to one of the ladies. Once one of the ladies dropped her pocket-book and the boy picked it up and gave it to her. This boy was courteous.

RAYMOND COLE BEELER, (10 yrs.)

"WHAT IS A WOOD-CHUCK?"

The following excerpt from a letter from *Rock Island, Ill.*, explains itself:

"My pupils enjoyed your Wood-chuck story very much. [In November JOURNAL.] They had just finished the biography of Daniel Webster and were delighted to have a story about him. Before giving them the story I gave each a slip of paper and asked for written opinions without comment or questions. Here is the result:

"A wood-chuck is a kind of fowl that lives in rotten wood and old logs."

"An animal something like a squirrel."

"An animal something like a coon. It lives in the woods."

"A wood-chuck belongs to the squirrel family."

"Animal living in a tree."

"A wood-chuck is an animal something like a ground-squirrel."

"A bird."

"Ground-hog, I saw one last summer."

"I don't know."

"A wood-chuck is a small bird with a long bill and sharp claws."

"A wood-chuck is a large solid piece of wood."

"God must be very good indeed, who made each pretty thing,
I'm sure we ought to love him much for bringing back the spring."

PRIMARY DEPARTMENT.

AN APRIL SEWING CARD.



DOG-TOOTH-V

(Sewing card by Miss LUCY HARING. Persons desiring these cards can secure them by addressing Miss HARING at Aurora, Ind).

For general instructions on the use of sewing cards, see March JOURNAL. In selecting colors for a picture, be as true to nature as the stock of your dealer will allow, so that the child will have impressed upon him a correct idea of color. The name of this card—dog-tooth-v (violet)—as well as the flower itself should be

sewed in white. The stamens should be sewed in yellow ; the bud in pale gray ; the stems, grass, and leaves in a grayish green ; the dashes in the leaves in pale gray. We would be glad to see at this office some specimens of work done in this line.

EVERY-DAY CHILD-STUDY.

HARRIET S. HAYWARD.

The age of child-study with all its train of blessings, is here. Let us be thankful for it ! What should we do without the excellent psychological papers, the child-study journals, and all the flood of pamphlets which investigation is letting loose upon us ?

The students are amassing statistics of inestimable value, if used aright. They are working upon the mountain peaks, getting broad, general views of the child world. Away down in the valley of every-day routine—oftentimes drudgery, sad to relate—is the grade teacher. Incidentally she is studying her children ; perhaps by the aid of the carefully taught psychology of her normal training ; perhaps, if she be untrained, under the simple direction of her own motherly heart. Should she meet the statistician, he could not help her, for it is not statistics she needs. What are the lessons of child-study for her ?

If she is a careful student of hygiene, she has already looked well to the ventilation of her school-room ; she has tried to arrange so that the light may come to each child from the left and back ; she has tested in a simple way the sight and hearing of her pupils. John, with his poor eyes, occupies a seat where there is no cross light upon the board, and near enough to it that he may see with ease. Janie, with her defective hearing, is near the front of the room ; her teacher is resolved that the habit of disobedience shall not become habitual because those little ears do not catch commands quickly. All the children, too, are placed in such seats that their growing bodies are not cramped, feet can touch the floor, and little backs are not bent out of shape. What is left for her to do ?

This—and the most important thing of all—to make each and every child the subject of a deep, abiding love. But that is not child-study ! Ah, yes, it is ; the very best kind of child-study. For does not love base itself on sympathy ? and where is sympathy

without knowledge? If a teacher loves her children truly, she knows them through and through.

Not statistics alone, then, for us, the every-day workers; not mere cold scientific investigations, but love, "which is the fulfilling of the law."—*Primary Teacher*.

AN INTERPRETATION OF SPEER.—I.

ANNA BROCHHAUSEN, CRITIC TEACHER, INDIANAPOLIS.

The child's mind very early displays an active interest in all things about him. Few parents and kindergartners have not experienced the difficulty of answering his numerous questions.

The adult is placed in the position of an educator. It becomes part of his duty to carefully train the senses. Through them the mind orients itself in the material world. The mind must be disciplined to see accurately the differences of form. "The cardinal fault of uncultivated sight-perception," says Herbart, "is its concentration on color; observation (*anschauung*) should correct it by exhibiting and fixing the attention on form. Forms must be studied systematically as form; their concepts must enter into, and become an integral part of the mind's content. Mathematics contains the material gathered by the greatest minds of all ages for the study of form."

So Speer, in his primary arithmetic, first leads the child to see form.

The work is begun with a lesson on the sphere. Various sizes of spheres should be in the room. Objects like the sphere, *e. g.*, balls, foot-ball, apple, orange, nuts, paper weight, etc., should be placed in various parts of the room.

Teacher (holding up the sphere):—What have I?

Child—You have a ball.

Teacher—We call it a—"sphere." (flash method).

Class repeats word.

Teacher—Have you ever had a sphere in your hand? Come, take it. Tell me something about it.

Child—It is round and smooth.

Teacher—What can it do?

Child rolls it, giving it a start with a free swing of the arm. He goes after it and returns it to the teacher.

Teacher—Now let me see what sharp eyes you have! Can you find other spheres, or objects like a sphere in the room?

Seven or eight pupils go at once. They bring the objects before the class. Each child in turn takes the sphere in one hand and the object he found in the other, and says, "This—is like the sphere," holding each up, when mentioned, with a good arm movement. Differences in size and weight may be given. The child being held to a good form of expression, every lesson becomes a language lesson. Freedom is gained in expressing himself *before* his class.

If this is the close of the lesson, the child places the object in the same place from which it was taken. (Sense of location.)

If the lesson is to continue, the children leave these objects in front of the class, while other pupils are sent to find still other objects. This calls for greater observation on their part.

Aim for second lesson:—From now until our next lesson, let us see how many objects like spheres we can find. Let us be ready to tell where we saw them, and to bring one to class if we can.

The cube, cylinder, oval, ovoid, square, prism, etc., are studied in like manner.

These forms are only a foundation for the cultivation of a habit of observation. The mental image—spherical, cylindrical,—needs to be formed, so that it may be recognized anywhere. It is necessary that the child should perceive these general forms, wherever they may be found, before he proceeds to exact comparisons in measurement.

Thus the natural activity of the child is being guided. Every lesson gives an opportunity for freedom of action. The eye is trained to observe and discriminate, the hand to feel, the muscles to weigh, while the mind is gradually disciplined to accuracy of judgment. The whole child is actively engaged. The interest is spontaneous, because these activities are rooted in the very nature of the child.

Games should be introduced in which the sight, hearing, and feeling are tested.

Acuteness of sense perception is aided by visualization. Arrange three or more objects on the table and remove almost instantly. The child tells how they were arranged from right to left, from left to right, or a child may arrange and call on one of his classmates to give the order of the objects. (Social idea.)

Let a child rearrange and another tell clearly what was done.

The class looks at all the objects on the table. Teacher:—Think of any three (or four) of them arranged in some relation to each other. Describe your picture.

One pupil describes his mental image and calls on another to arrange the objects in the relation described. The first pronounces judgment on the work done.

Various devices of this kind call forth the active participation of the children.

Not only Froebel's principle, of proceeding from the object to the idea, is found in this course of arithmetic; but his plan of movement,—from the solid, to the surface, to the line, is also followed. Now that the child recognizes these general type solids, he is led to perceive their general surfaces. He learns that surface is the outside of anything; that there are round, plane, and curved surfaces, and then the concept—round, plane, or curved—is formed by finding these respective surfaces on objects in the room, at home, and in nature.

Having so far become familiar with these general forms, the child is ready to make general comparisons. That all the above is the beginning of mathematics is now apparent. Mathematics is the science of magnitudes. Recognition of inexact relations naturally precedes the recognition of exact relations. So now the child compares two objects, (any two objects in the room, two solids, two objects on the dinner table, two animals.) The smallest child in the room is chosen by the children. (If teacher wishes, she may measure the child. This an opportunity for this line of child-study.)

The general comparison of surfaces follows, e. g; the plane surface of this cube (four inch cube) is larger than the round surface of this (sphere two inches in diameter.)

This systematic sense training should be begun in the first school year. Exact relations will form the subject of the second article.

One day each week allow each pupil to give out one word for the class to spell, the whole class to write the word. The pupil is to be held responsible for giving a word that they have had in connection with their spelling, geography, or language work; and the pupil who selects the word on which there are the most failures makes the greatest success.—*Primary Teacher.*

THE SCHOOL-ROOM.

SHOULD WRITING SLANT?

W. S. HISER.

It is believed that it is very important that superintendents and teachers should become more familiar with some evidence and careful observations on this question. The accompanying cuts alone give a clear insight and afford a fair representative basis from which to draw conclusions.

The higher the grade of pupils and the more haste required in written work, the greater the tendency of the letters to slant right or left; however, in nearly all cases, to the right until the slant, as shown by repeated tests in large business offices, approximates 70° to 75° . In the business world, among clerks, book-keepers and telegraph operators, where writing is put to the severest test, and where the law of motion in writing rapidly across the page has full sway, it is found by actual test that the writing of 95% of them slants. In another test of 200 business signatures collected from New York City, 98% of them slant; 96% of them slanting to the right. A system of penmanship published by the H. P. Smith Pub. Co., of New York, seems nearest the true standard of slant as practiced by business men, and there could be no better standard for the school than that of the business world.

Pupils come into the Richmond Schools who have attempted vertical writing, and they are permitted to continue the attempt and the result has been observed. Those who persist in trying to write vertically are now writing a back hand, the letters slanting back as far as those of the others slant to the right. No claim is made for a back hand, however, as it is slow and impracticable. That writing will slant forward or backward is being proven by specimens collected from different cities trying the vertical. This fact is verified by the general written work (not a few selected specimens) from the public schools of the capital of our State where the vertical has been taught for two years. Further, in

the High School and in the Industrial Training School of that city, in which two buildings, a special teacher of penmanship is employed, it is not required that the pupils write vertically and as a result 95 per cent. use a right slant, and the majority of the others write a back hand. Prepared specimens of writing from the primary grades is not a fair criterion by which to judge a system. The regular written work done under thought pressure in preparing lessons, particularly in the upper grammar grades, and in the first year high school, is fairer and more convincing evidence.

Legibility is the one claim for writing without slant ; but this legibility is due to the coarse pens that are used, requiring a large open letter, as much as to the lack of slant. A medium slant hand, the average slant of business men, written with a coarse pen appears equally as legible.

It is generally conceded that slant writing is the most rapid and this is clearly shown by the accompanying specimens. The specimens here presented would seem to indicate that writing must slant to the right, when written at the highest rate of speed, and there is no practical use which writing serves, in which a rapid speed is not absolutely demanded. Too much importance cannot be attached to this since writing at its highest rate of speed is not then able to keep pace with thought, whose vehicle it is.

Our best and most rapid business penmen come from the commercial schools ; yet during the past five years' agitation of slant or no slant, none of them have changed from the slant style.

It is quite unfair to lay all so called " school diseases " on the shoulders of slant, when it should be laid at the feet of imperfect lighting and especially at the feet of careless, imperfect un-hygienic seating.

At the last National Penman's Association in Chicago, there was less support given vertical writing than the previous year.

Daniel T. Ames, editor of the *Penman's Art Journal*, of New York City, said at the convention " that the slant is naturally from 70 to 75 degrees to the right." Mr. Ames is regarded as the most competent judge in America.

IV

Count that day lost
Whose low descending sun
Views at thy hand
No worthy action done.

Written eleven times in thirty minutes by Leslie Arnold.

V

Count that day lost
Whose low descending sun
Views at thy hand
No worthy action done.

Written forty times in thirty minutes by Thos. S. Duffy.

I

Count that day lost,
Whose low descending sun,
Views at thy hand,
No worthy action done.

Written sixteen times in thirty minutes by Frederick Harris.

VII

Count that day lost
whose low descending sun
Views at thy hand
No worthy action done.

Written forty-five times in thirty minutes by Irving Mahuken.

I

Count that day lost
whose low descending sun!
Views at thy hand
No worthy action done.

Written thirty-five times in thirty minutes by C. T. Flach.

II

Count that day lost
Whose low, descending, sun
Views at thy hand
No worthy action done.

Written eleven and one half times in thirty minutes by Chas. H.
Place.

III

Count that day lost
Whose low descending sun
Views at thy hand
No worthy action done

| Written thirty-four times in thirty minutes by Harry Harris.

VI

Count that day lost
Whose low, descending sun
Views at thy hand
No worthy action done.

Written seven and one half times in thirty minutes by Thomas
Marshall.

V

Count that day lost
Whose low descending sun
Views at thy hand
No worthy action done.

Written forty-five times in thirty minutes by D. H. Fitzgerald.

The specimens of writing here represented, were originally collected from the Brooklyn Public Schools for A. M. Palmer, Editor of the Western Penman, Cedar Rapids, Iowa. The conditions imposed in the test were that the best writers in the upper grammar grades should be given a number of tests (as many as they desired) and only the best specimens were to be accepted.

Vertical writing copy-books are used in the Brooklyn, New York, public schools and it is believed that as good results are secured there through their use as it is possible to secure.

In all, twenty-five specimens each of the vertical, and the slant writing were collected. They are all of uniform quality so far as the slant writing is concerned ; but only the best vertical specimens are here represented.

Prof. Howard Keeler was invited to secure these specimens because he was known to be a thoroughly reliable gentleman , an educator of standing and one of the most successful teachers of practical writing in America and a man who comes in contact with a great many of New York's leading business men, and knows their wants. The following is his letter accompanying the specimens :

Pursuant to your request of recent date, I send you herewith some specimens of vertical writing, all done by boys from 13 to 17 years of age, who have recently graduated from various grammar schools of Brooklyn. I asked for their best work and requested them to do as much as they could in 30 minutes.

At the expiration of the time they were all very tired and admitted that they could not keep up the same rate of speed another half hour.

I have taken the liberty of sending you some work done by my own boys who range from 13 to 17 years of age. I wish to add that our course of study provides for lessons in writing averaging ten a month during the course ; the periods are 45 minutes in length and no effort is made to develop more speed than muscular movement naturally produces.

For my own part, I am convinced that slant writing is just as legible as the vertical specimens, and in addition to this, it is written from two to six times as rapidly. We now employ four

penmen, besides myself, for work in this one school and they are all with me on this question. Yours truly,

HOWARD KEELER.

Boys' High School, Brooklyn, N. Y.

Quoting from Professor Keeler's letter of March 11, he says, "I called upon a hundred business houses that I have been supplying with help and none of them were willing to engage boys who wrote vertically."

The first change needed in our public school writing is to substitute coarse or stub pens for the fine and medium fine pens now in use. The rights and nature of the boy grounded on child-study, warrant this change; and the practice of his father in using a stub pen in his business, doubly warrants it.

The copies in our copy-books should continue to slant as much as the average slant of good business writing, as exemplified in the counting-house. The backhand is an oddity, the vertical, a passing fashion. The above are conclusions reached after teaching sixteen years in the public schools, the last five as special teacher and supervisor of penmanship.

Richmond, Ind.

EDITORIAL.

"AN INDIANA OXFORD."

The above was the title of a paper recently read by a prominent Indianapolis lawyer, Edward Daniels, before the Indianapolis Literary Club, and it excited a lively discussion. As it was indirectly a discussion of the State and non-State college question, it has more than a local interest. The following are some of the points made.

The title of the paper is justified on the ground that the University of Oxford, England, is purely an administrative body and is made up from the representatives of nineteen or twenty independent colleges. The colleges are absolutely independent in their finances and their general management. The University fixes the standard for entrance and the standard for graduation. When a student is admitted to the University he can pursue his studies in any one of the colleges, and when he is ready to graduate, the University and not the college confers the degree. This plan keeps up the standard of all the colleges to a high and uniform plane.

Mr. Daniels proposes that the colleges of Indiana shall form themselves into a university, carrying out the main features of the Oxford plan. He would have all the colleges of the State work under a State board of regents, whose duty it would be to fix a minimum standard for admission to the

freshman class, and fix the minimum amount of study for a degree. All colleges would not be required to have the same course of study, but any college that belonged to the University would have to have a course of study "up to the standard" and approved by the board. Under this plan a person might complete the freshman work in one college and enter the sophomore year in another on his certificate without examination. Mr. Daniels would include the normal schools in this arrangement and place the graduates of all on an equality. He would also put the State library under the control of this board with a view of ultimately having district and township libraries and organizing the whole into a State system. He added also the plan of a university lecture course.

No college or school would be *required* to join in this arrangement, but it is believed that most, if not all, would be glad to join. If a college did not join, it would put itself out of relation to the State system, and the natural conclusion would be that its work was below the standard.

New York has a board of regents and its colleges and high schools have been working under this plan for many years. Those who know of its practical working speak in strong terms of its good results. The New York board fixes the standard of entrance to the high schools, and also controls the licensing of teachers.

Under the New York law, regents are appointed for life and can not be officially connected with any educational institution in the system.

Mr. Daniels insisted that no one on the board should have any official connection with any of the institutions affected by it. This plan would remove not only all opportunity for partiality, but all suspicion of it.

With only a little modification, Indiana's present State Board of Education could act as a board of regents and do all the work suggested. Some such plan would be a happy solution of the present controversy—a consummation devoutly to be wished.

READING EDUCATIONAL JOURNALS.

"O, yes, I take an educational journal because I am expected to; but, honestly, I don't find any help in it."

"What is the name of it? Who is the editor? Where is it published?"

"I am sure I don't know anything about the editor or the place it comes from. How should I? The name of it is ——. I do remember that, and I know how much the price of it is, too. But as I said, I don't get any good from it. Indeed, I haven't taken the last two or three out of the wrappers yet."

They tell us that when we speak evil of another we unconsciously proclaim our own moral status. They also tell us that to criticise a work of art superficially, reveals the ignorance of the critic. It is also true that a good musical selection is appreciated and enjoyed according to the amount of musical knowledge possessed by the listener. And it is undeniably a fact that the reader reads into a poem only that which he brings to it.

The application? It is plain. The teacher who finds most value in an educational journal, is the teacher who brings to that journal the most thought, the greatest earnestness, and the richest experience. Now educa-

tional journals, like all other publications, might be a great deal better than they are. But the poorest educational paper ever sent out to long-suffering teachers, contains enough of truth and suggestion to make it worth while to open it and absorb what nutriment it may contain. A hungry teacher, with mental and professional vigor, can always find and assimilate something in every educational magazine. Such a teacher may wish there was a greater quantity and better quality, but she compliments herself by finding what there is and making the most of it. And the reverse is unquestionably true; the teacher who does not unwrap her paper, and knows nothing of its contents or aim, and who only pays for it upon a second or third presentation of the publisher's bill, is the teacher who ought not to be teaching at all, for the good of the children and the profession. This does not mean that she is unfit to teach because she fails to do these things, but this habitual neglect and chronic fault-finding with all educational literature is a pretty sure sign of an indifferent and incompetent teacher. Certain symptoms indicate certain diseases to practised eyes.—*Primary Education*.

WHAT TRUSTEES OWE SUPERINTENDENTS AND TEACHERS.

As the end of the school year approaches, the JOURNAL wishes to repeat what it has said many times before. It wishes to say again as emphatically as it can that trustees owe something to those who have served them faithfully, over and above their salaries. A teacher who has done faithful, efficient work has *earned* the right to be re-elected. It is a mistake to change teachers frequently. A well qualified teacher, who knows the children and the environments, can do better work than a new teacher of equal ability. A teacher who can not do better work a second year than he did the first never should have been employed at all. Teachers should be encouraged to do their best work by giving them permanent employment.

In the next place, teachers should be appointed promptly at the close of the school year. This is now generally done in the cities, but it should be done in the country, as well. There is no good reason why teachers should be kept in suspense during the summer. Prompt engagement is always a favor to those who are to have schools, and it is also an advantage to those who are not to get schools, as they can at once make their plans to do something else.

In the third place, teachers who are not to be re-employed should be notified quietly and confidentially, before the close of school, so they can decline to be applicants for re-appointment. A teacher's reputation is his capital, and without this he is absolutely shut out. It is bad enough for a teacher to lose his place without having his professional reputation smirched. Often it is true that a teacher in a new place and with past experience can turn failure into success. The teacher who fails should certainly be permitted to try again.

What is said above of teachers can be said with even greater force of superintendents. It is absolutely wicked to allow a person to serve up to the end of the school year, and then without even a hint, drop him. It often happens after years of faithful service, that a superintendent is simply

dropped without warning. Such a course can not be justified or even excused.

SPECIAL OFFER.

At this season of the year the JOURNAL usually makes a special offer to secure new subscriptions as well as to induce teachers to renew. Any one who will renew his own subscription or secure a new one, and send \$1.25 will receive as a premium either of the following most desirable books, the regular price of each being 75 cents. Two names and \$2.50 will secure both books. This is a golden opportunity to secure without money, and almost without price, two books that should be in every teacher's library. The books are as follows :

1. "THE FIRST SCHOOL YEAR"—Every primary teacher should have a copy of Miss Beebe's charming and suggestive book. The author is a very successful kindergarten supervisor in Evanston, Ill., and in her book has given teachers of little children invaluable help on these most practical subjects :—Plays, Games and Songs ; Gifts, Occupations and Materials ; Science Work ; Festivals and Holidays ; Color, Form and Number ; Trades, Industries, Art, Artisanship ; Self-Expression in the School Room ; Literature for School Children ; Concentration in Plans of Work ; Growth in School Life ; What the Kindergarten Does for the Children.

2. "HEGEL'S EDUCATIONAL IDEAS"—Dr. Bryant is well known as a writer on philosophical subjects. He is instructor in psychology and ethics in the St. Louis Normal and High School, and the author of several well-known works of great value. In this book he treats, in a profound and practical manner, the following subjects among others :—"From the Simple to the Complex ;" "The Ages of Man ;" General Notion of Education ; Instruction : Its Character, Its Process, Its Means, Its Method ; Discipline ; Refinement, etc.

NEW COURSE OF STUDY.

A new course of study for the common schools of cities and towns, below the high school, is now about completed. The city superintendents have been at work upon this for three or four years, and much of the time at their annual meetings has been given to this subject.

Committees have been appointed and reports made from time to time, and much of what has been finally agreed upon has been tested in the school-room. A year ago last November, a committee of forty was appointed, divided into five sub-committees. To each sub-committee was assigned a subject or section of the work. These committees reported last November, and all their work was referred to a committee consisting of the chairmen of the sub-committees and the person in charge of the committee of forty. This committee of six held a meeting at the holidays and went over a part of the work and recently at another meeting completed their work. It was not an easy matter to correlate and co-ordinate these separate reports, but it has been faithfully done. The course as agreed upon does not represent the exact views of any one member of the committee, but is what could be

agreed upon. It is doubtless better because of this fact. The report will be printed and ready for distribution in a few weeks.

The committee who gave the finishing touches are a strong recommendation to the course suggested and it is believed that it will be generally used. The committee are W. D. Weaver, Marion, chairman; T. A. Mott, Richmond; Edward Ayres, Lafayette; J. W. Carr, Anderson. A. E. Humke, Vincennes; B. F. Moore, Frankfort.

CODE OF HONOR.

There is a "Code of Honor" among superintendents of schools that absolutely forbids one superintendent from trying to get a place held by another. This code of honor will not allow a superintendent to say, "I am not a candidate but will serve if elected," so long as the incumbent is asking re-appointment. This is only an indirect way of saying, "I am a candidate and, while I will not work myself, I would like to have others work for me." "I am in the hands of my friends."

For a superintendent to become a candidate for a place held by another, is simply a bid for some other superintendent to come in next year and try to oust him. This "code of honor" is right in principle and should be universally observed. It is observed among the better class of superintendents. A superintendent who would deliberately violate it would lose caste among his fellow superintendents.

Let each community settle its own difficulties. If a superintendent is not wanted longer at a given place let the school board tell him so, and then the place will be vacant, and any one can honorably apply for it.

No honorable superintendent will become an applicant either directly or indirectly for a place already filled by a person who desires re-election. Most superintendents now, when informed of a "probable vacancy," write, not to the trustees, but to the incumbent and get from him the situation.

This "Code of Honor" should govern not only superintendents, but all teachers in all grades of schools, in both city and country.

THE STATE SUPERINTENDENCY.

The political parties will soon hold their conventions, and along with other State officers will each nominate a superintendent of public instruction. This officer is usually the last one nominated and gets little consideration. This ought not so to be. No other State officer, excepting the Governor, has so much to do with the welfare of the people. This place should command the best educational talent in the State. The superintendent should be a man who would give dignity to the office, and not a person who would depend entirely upon the office for his educational standing. Considering the fact that the office is in politics and that any one may aspire to it, Indiana has been fortunate in the class of men elected to this office. Most of them have been at least representative. There have been a few exceptions. The office is the most poorly paid of all State offices, and taking into consideration the short term and the uncertainty of election, our best men

cannot afford to give up their places and take the chances. The pay should be at least double what it is. Any one who fills the place well earns double what he can legitimately save out of the office.

But the place is honorable and good men will take it as it is. Let each party nominate its best available man and the schools of the State are safe.

BOOK EVALUATIONS.

CONDUCTED BY CHARITY DYE.

(Communications addressed to 1122 Broadway, Indianapolis.)

Biography which was emphasized last month, stands closely related to history and leads to it. Histories are the fact-books of the world and must therefore lie at the foundation of literature. But while this is true, history makes its first appeal through story and biography; here, it is not pure fact, but fact mixed with fancy.

Mr. Lowell has given sound advice upon the reading of history and he himself is a living example of how it can be learned through biography. It is interesting to note, however, that his advice does not coincide with his experience.

[The following extract is printed by permission from "Letters of James Russell Lowell," copyrighted, 1898, by Harper and Brothers. The letter is written from Elmwood in 1845, to Edward W. Davis, in response to a request for his advice upon the subject of reading.]

MR. LOWELL SAYS:

"I suppose that very few men who are bred scholars ever think of such a thing as a *course* of reading after their freshman year in college. Their situation throws books constantly in their way, and they select by a kind of instinct the food which will suit their mental digestion, acquiring knowledge insensibly, as the earth gathers soil. This was wholly the case with myself. There is hardly any branch of knowledge in which I have not read *something*, and I have read a great many out-of-the-way books, yet there are many which almost every one reads that I have never opened. For example, I have read books on magic and astrology, and yet never looked into a history of England. All that I know of it, I have acquired by reading the biographies of men whose lives *are* the history of England. So, too, I know more of the history of ancient Rome than I do of that of America.

"Having now proved myself to be wholly incompetent to give any advice (as is usually, though more unconsciously, the case with advisers), I proceed to give it. If I were in your case, I should read history. Hume and Smollett for England, Robertson for Scotland, Niebuhr and Gibbon for Rome, Mitford for Greece, Bancroft for America. Thucydides and Livy and Herodotus you can read in translations, also Tacitus. Read them always with a modern eye, and note how exactly alike men have been in all ages of the world as far as the *external* motives of life go. In the *internal* you will

find a steady progress. You will see men in every age and country with genius, self-devotion, high moral principles—in short with *inspiration*. You will see the masses always struggling with a blind instinct upward, but never so much as now will you find great principles diffused and forcing men into action. All history shows the poverty and weakness of force, the wealth and power of gentleness and love.

"Read also the Reviews; they will keep you abreast of current modern literature. In astronomy read Nichol, in geology, Lyell. Michelet's History of France, (now publishing) is a good one I believe." [This letter remember, is dated 1845.]

"After you have once begun to read you will need no advice. One book will lead to another and that to a third. If I think of any better books, I will mention them in another letter. But history must always lie at the foundation."

[If Mr. Lowell were writing now he would certainly add Fiske for the United States and Green for England.]

COMMUNICATIONS.

(From Miss Anna Brochhausen, Director of Practices, Indianapolis.)

To accomplish the formation of a moral character, the "Culture Epoch Theory" would keep before the mind of the child a few fundamental ethical ideals. Literature and history therefore form the nucleus of the curriculum; history being the description of each succeeding stage in the development of mankind, while literature is the embodiment of the imagination, the inner strivings of the people in each stage. Thus, according to this theory, history should be begun with myths and fairy tales—the mythical and heroic mind merges into biography and finally culminates in history proper. In this way the epochs of culture are made a part of the child's experience.

MISS DYE:—I wished when I read your article in the last JOURNAL that you had referred to John Fiske's "Life of Edward Livingstone Youmans." We do not usually think of Mr. Fiske as a writer of biography but he is as much at home there as he is in other lines.

In the history work, the tendency to make use of local history as a basis and to teach history through literature will be aided by the work of the society at Brookline, Mass., and its publications. An article in *The Outlook* for April 24, '97, p. 1100, tells of the work of the New York society. The series of "Stories of the States," published by D. Lothrop Co., is interesting reading for the young and furnishes in each volume bibliographical lists helpful on both lines suggested above. In *The School Review* for March 22, '97, is an interesting selection of topics for supplementary reading in United States history. In "Studies on Education" numbers II and III, is a good article by Mary Sheldon Barnes on "The Historic Sense among Children." A new series of the "Stories of the States" is announced by the American Book Co. So far, the following volumes have appeared; Stockton's "Stories of New Jersey;" Walton and Brumbaugh's "Stories of Penn-

sylvania;" Howell's "Stories of Ohio;" Harris's "Stories of Georgia;" Musick's "Stories of Missouri." Thompson's "Stories of Indiana will appear soon. Price, 60 cents each. The same publishers have "The Story of Japan," by R. Van Bergen. A most excellent book for children is W. E. Griffis's "Brave Little Holland." Respectfully,

FRANK A. MANNY,
Supervising Principal in Indianapolis Schools.

[History will be continued next month. Communications are requested.]

QUESTIONS AND ANSWERS.

STATE BOARD QUESTIONS USED IN FEBRUARY.

SCIENTIFIC TEMPERANCE.

1. *Do children suffer any by inheritance of the deleterious effects of excessive drinking on the part of their parents?*

The careful investigation of several hundred cases, by competent physicians proves conclusively that children often do inherit the defects and the tendencies of drunken parents. Appetites are most certainly inherited.

2. *How is hearing injuriously affected by the drinking of alcohol?*

Alcohol inflames the mucous membrane of the throat, then by its nearness, the lining of the Eustachian tube, and finally may injure the delicate apparatus of the internal ear.

3. *Why is it that a protracted spree is usually followed by a severe headache? Why should this be a warning to the drinker?*

A protracted spree affects both the brain and the stomach. So much blood is sent to the brain that it is soon strongly affected by the alcohol; and this condition prevailing for some time so interferes with its normal condition as regards moisture and capillary circulation that a severe headache is the result. Again, in a protracted spree the stomach becomes so disordered as to cause headache through the medium of the sympathetic system of nerves.

4. *How do the physical effects of the long continued use of light wines differ from the effects of the similar use of strong drinks?*

Only in degree. Both create the drink appetite. The latter does its work more quickly.

5. *What effect has alcohol upon muscular tissue immersed in it? Has it the same effect upon the muscular tissue of the living stomach? Explain.*

(a) It abstracts the moisture and causes it to shrivel and shrink, and become harder. (b) It has the same effect upon the muscular tissue of living stomach but to a much less degree; for circulation here carries away to other parts much of the alcohol. But it here works injury other ways. It causes the capillaries in the surface of the lining to become congested, and inflammation soon arises.

6. *What is chloral? Is it a stimulant or narcotic?*

Chloral is a powerful drug and narcotic poison used to produce sleep. It is a colorless oily liquid, of a pungent odor and harsh taste, obtained by the action of chlorine upon ordinary or ethyl alcohol.

7. *Mention a few well known drugs each of which opium constitutes a part.*

Morphine, laudanum, and paregoric.

PHYSIOLOGY.

1. *Describe the structure of bone and state how bones grow.*

The Haversian canals run lengthwise of the bone, and are supplied with tiny blood vessels, while the lacunal contain bone cells. Very fine branches from these cells pass into the canaliculi. Bones are not dry lifeless substances, but are the very type of activity and change. In life they are richly supplied with blood from the nutrient artery and from the periosteum, by an endless network of nourishing canals throughout their whole structure.

Bone has therefore, like all other living structures, a self-formative power and draws from the blood the materials for its own nutrition. A fresh or living bone is covered with a delicate, tough, fibrous membrane, called the periosteum. It adheres very closely to the bone, and covers every part except at the joints, and where it is protected with cartilage. The periosteum is richly supplied with bloodvessels and plays a chief part in the growth formation, and repair of bone. If a portion of the periosteum be detached by injury or disease, there is risk that a layer of subjacent bone will lose its vitality and be cast off.

ARITHMETIC.

1. *Define what is meant by the difference of two numbers. From 7,206,349 subtract 3,594,137, and explain each step of the process as you would to a class commencing the study of subtraction.*

See any good text.

2. *Give such explanation as you would use to make a class thoroughly appreciate the concepts "square of a number;" "cube of a number."*

An explanation that is often given embodies the following statements:

(a) The first power of a number is itself; as, the first power of 3 is 3.

(b) The second power, or *square*, of a number is the product obtained by taking the number twice as a factor; as, $3 \times 3 = 9$; 9 is called the *square* of 3.

(c) The third power, or *cube*, of a number is the product obtained by taking the number three times as a factor; as $3 \times 3 \times 3 = 27$; 27 is called the *cube* of 3.

Now, these ideas should be further illustrated by the use of a surface 3 inches square, and of a cube whose edge is three inches. Or, figures may be drawn, such as are found in the text-books under the subject of involution.

3. *Describe the Roman and Arabic notations and the numeration used in the United States. In the usual notation we write, ten, one hundred, one thousand, respectively, 10, 100, 1,000. Would it be possible to use in arithmetic the notation 10, 100, 1,000, respectively for eight, sixty-*

four, and five hundred and twelve? Is there anything inherent in ten that gives it the prominent place it now occupies in the arithmetic?

For the first part of this question see any good text-book on the subject. It would be possible to use the notation 10, 100, 1,000, respectively for eight, sixty-four and five hundred and twelve. There is nothing inherent in ten that gives it the prominent place it now occupies in the arithmetic.

4. How do the quantities $\frac{75 + \frac{1}{2}}{89 + \frac{1}{2}}$, $\frac{75 - \frac{1}{2}}{89 - \frac{1}{2}}$, $\frac{75 \times \frac{1}{2}}{89 \times \frac{1}{2}}$, $\frac{75 \div \frac{1}{2}}{89 \div \frac{1}{2}}$, $\frac{75 + 0}{89 - 0}$ compare with $\frac{75}{89}$? Give reasons.

(a) The first expression has a value greater than $\frac{75}{89}$, because adding the same positive quantity to both terms of a fraction increases its value.

(b) The second expression has a value less than $\frac{75}{89}$, because adding the same negative quantity to both terms of a fraction decreases its value.

(c) The third expression has a value equal to $\frac{75}{89}$, because multiplying both terms of a fraction by the same quantity does not change the value of the fraction.

(d) The fourth expression has a value equal to $\frac{75}{89}$, because dividing both terms of a fraction by the same quantity does not change the value of the fraction.

(e) The fifth expression has a value equal to $\frac{75}{89}$, because a quantity is unchanged either by adding zero to it or by subtracting zero from it.

5. How long does it take the hour hand of a clock to move through an arc of $16^{\circ} 13' 21''$, and over how great an arc will the minute hand move in the same time?

$16^{\circ} 32' 21'' = 58,401''$ The hour hand moves over 30° (or 108,000'') in one hour, or 60 min.; it will move over 58,401'' in $\frac{58,401}{108,000}$ of 60 min. = 32 min. $26\frac{7}{10}$ sec. In a given time the minute hand moves over twelve times the space that the hour hand does; $12 \times 16^{\circ} 13' 21'' = 194^{\circ} 40' 12''$.

6. A farmer sowed 5 bu., 2 pks., 3 qts. of seed and harvested from it 104 bu., 3 pks., 5 qts. How much did he raise from a bushel of seed?

104 bu. 3 pks. 5 qts. = $104\frac{1}{3}\frac{1}{3}$ bu.; 5 bu. 2 pks. 3 qts. = $5\frac{1}{3}\frac{1}{3}$ bu.; he raised as many bushels of seed as the number of times $5\frac{1}{3}\frac{1}{3}$ is contained in $104\frac{1}{3}\frac{1}{3}$, or $18\frac{1}{3}\frac{1}{3}$ times; therefore, he raised $18\frac{1}{3}\frac{1}{3}$ bushels from a bushel of seed.

7. What is the duty @ 25% ad valorem on 320 boxes of raisins, each containing 45 lbs. and costing 8 cents a pound?

320 boxes of raisins, each containing 45 lbs., and costing 8 cts. a pound, would amount to \$1152. The duty at 25% ad valorem would be $\frac{1}{4}$ of \$1152, or \$288.

8. Find the face of a note at 90 days that will realize \$935 when discounted at 7%?

The proceeds of \$1 = $\$1\frac{1}{100}\frac{1}{100}$; the face is as many dollars as the number of times $\frac{1}{100}\frac{1}{100}$ is contained in 935, or $952\frac{1}{100}\frac{1}{100}$ times; therefore, the face is $\$952\frac{1}{100}\frac{1}{100}$.

9. How many hours a day must 7 men work to mow the same quan-

tity of grass in 10 days that 11 men can mow in 6 days, working 10 hours per day?

11 men in 6 days, working 10 hours per day, will do $(10 \times 6 \times 11)$ hours, or 660 hours work for one man. 7 men in 10 days will do 70 days' work. That this 70 days' work may be 660 hours' work, the men must work as many hours per day as the number of times 70 is contained in 660, or $9\frac{3}{7}$ times; hence, $9\frac{3}{7}$ hours per day.

10. Reduce $\frac{3}{8}$ of $\frac{1}{2}$ to a decimal. Reduce 20.018375 to a common fraction in its lowest terms.

$$\frac{3}{8} \times \frac{1}{2} = \frac{3}{16} = .1875.$$

$$20.018375 = 20\frac{18375}{1000000} = 20\frac{147}{8000}.$$

GEOGRAPHY.

1. (a) *How many degrees distant from each other may two places in the same latitude be?* (b) *In the same longitude?*

(a) We suppose the question means *how great a number of degrees distant from each other may two places in the same latitude be?* (b) *In the same longitude?* Answer, (a) 90° ; (b) 180° .

2. *Locate the lake region of Indiana. Give the approximate number of lakes in the State, and explain briefly their origin.*

It is north of the Wabash River. The lakes are the work of ice, which makes lakes in valleys and over a glaciated region by the dropping of moraines to act as dams, and by the forming of irregular depressions in the surface of the drift. The number of lakes is about 1000.

3. *Which way does the current in the Straits of Gibraltar flow, to or from the ocean? Give reason for your answer.*

Less water is precipitated in the basin of the Mediterranean Sea than is evaporated from its surface, which, therefore, tends to fall below the ocean level, and a current from the ocean into the sea is the result. This current is an *inflowing surface current*. There is a great amount of evaporation from the surface of the Mediterranean, and as this process removes fresh water only, we have a condition which, if not counteracted, would cause the saltiness to constantly increase; and as this does not occur, there must be a counter current carrying out enough of the excessively salt water to keep the degree of saltiness constant. The inclosed sea water being heavier than the fresher ocean water, there is an *outflowing under current* in the Strait of Gibraltar.

4. *When of two river valleys the one is narrow with gorges or canons, while the other is wide with rounded sides, what conclusion would you form as to the comparative age of the valleys? Give reason for your conclusions.*

Two agencies aid in the formation of valleys, *erosion* and *weathering*; the former deepens, the latter widens the valley that is being formed. Until a certain depth is reached, erosion proceeds more rapidly than weathering. Erosion is then checked while weathering continues. According to these general processes, the valley with rounded sides is the older in the sense used here, for it shows that even weathering has reached an advanced stage.

5. *What conditions are necessary to the profitable cultivation of rice? What countries produce most rice?*

The kind best known to us succeeds best on low lands subject to occasional inundations, and thus enriched by alluvial deposits. An abundant rainfall during the growing season is also a desideration. China, India, and the southern United States produce the most rice.

6. *What islands are known as the greater Antilles? How governed, and what are their chief products?*

Cuba and Porto Rico belong to Spain. Jamaica belongs to Great Britain. Hayti consists of two independent republics. Sugar, tobacco and coffee are the chief products of Cuba. "In richness and variety of vegetable products, Hayti is not excelled by any other country in the world. All tropical plants and trees grow there in perfection and nearly all the vegetables and fruits of temperate climates may be successfully cultivated in its highlands." The chief products of Porto Rico are sugar, molasses, coffee, honey and tobacco; of Jamaica, coffee, ginger, tobacco, pimento, rum, sugar, logwood.

READING.

1. *Name several "different ways of beginning the teaching of reading to children." Describe the method used in Indiana forty to fifty years ago.*

The most prominent of the several methods of teaching a child to read are the Alphabet Method, the Word Method, the Sentence Method, the Phonic Method and the Phonetic Method. The method in use forty years ago was the Alphabet Method, which began by teaching the child the names of the letters. When these or a sufficient number of them, have been learned, the child is taught to pronounce words by means of these names. (Language Arts, p. 93.)

2. *Which way or "method" is considered best at this time? Why?*

The Word Method is considered the best at this time. It is the way by which pupils learn to recognize words as wholes. The weak point in the Alphabet Method was endeavoring to teach the child the name of the word from the individual names of the letters. The principle underlying the Word Method is first, to give the child the *idea*, by picture or otherwise; second, to give him the *spoken word*; and third, to give him the *printed or written word*. After learning quite a number of words, the word name, as a whole, is separated into its sounds, each of which is then taught to the child as belonging to a certain letter whose name is also given. (Language Arts, 93 a., etc.)

3. *Distinguish between "teaching reading as thought" and "teaching reading as an art." Which is preferable? Why?*

Teaching reading as thought is directing the pupils' work chiefly in the line of the intellectual element, by which we understand what we read. (Language Arts, chap. VIII). Teaching reading as an art is directing the pupils' work chiefly in the line of the vocal element, by which we cultivate the power of vocal expression. (Language Arts, chap. XII). The

former is regarded as the most important as it is necessary in all reading, and the guide to reading, as an art.

4. *What does Mr. Hinsdale say about the assignment of a new lesson to young children?*

To young children it is no use to assign a reading lesson. "The child can do nothing alone and the teacher must work with him as well as for him. There is no such thing as preparation or study apart from the reading exercises. (See p. 95, Language Arts).

5. *"A definition does not add to one's real knowledge unless, it connects itself with something that he already knows. It must go back to some real or vital element in his mind. The growth of knowledge is a process of grafting a new fact or new idea into an old one." Does the quotation give a valuable suggestion about learning definition? What?*

It does. A definition should be examined and studied closely as to its parts, "the generic part" and "the characteristic part," each of which should connect itself with something already in the mind. (See pages 99 and 100).

GRAMMAR.

1. *What is meant by the art phase of grammar? What is meant by the science phase of grammar? What is the relation between the two? Explain and illustrate.*

Grammar as an art deals with the principles and rules which will enable a person to acquire the ability to use correct speech in expressing his thought. Grammar as a science deals with the established usage of language and the principles and rules which govern such usage. There is no special relation between the two. Yet, in studying either phase, the student will obtain ideas that will assist in the other. But it is possible for one to understand the science of grammar, and yet be unable to use correct speech; and it is possible for one to use correct speech and yet know nothing about the science of grammar.

2. *Give the classes of sentences on the basis of form. What do we mean by form as here used? Why do we have just these classes on this basis?*

(a) Simple, complex, and compound; (b) by form is meant its structure, in regard to the number and kind of propositions of which it is composed; (c) by the use of these three forms all the possible combinations of ideas can be expressed. There are only two different kinds of propositions, principal and subordinate, to be combined. The principal alone, (that is, a single proposition), forms the *simple*; the principal and the subordinate constitute the *complex*; and two or more principal propositions combined form the *compound*. No other combinations are possible, and a subordinate does not occur alone, as it pre-supposes a principal.

3. (See any good Text Book).

4. *Compare and contrast the adjective and the adverb as to what they express.*

The adjective expresses ideas of quality, appearance, condition, number,

or merely points out in a particular way. The adverb expresses ideas of time, degree, manner, place, negation, cause, etc. Both the adjective and the adverb are used subordinately.

5. *Give the chief distinction in the use of shall and will. Illustrate.*

Shall is used, in direct statement, with the first person, to express a simple future action; as, "I *shall* go to town;" with the second and third persons, to express a determination; as, "You *shall* go to town." "He *shall* go to town." *Will* is used, in direct statement, with the first person, to express a determination; as, "I *will* go to town;" with the second and third persons, to express simple future action; as, "You *will* go to town." "He *will* go to town."

6. *Charity begins at home. Show the difference between this sentence and the thought which it expresses. Compare and contrast the thought and the sentence.*

The sentence is formed of words, the thought of ideas. As a word is the sign of an idea, the thought is that which the sentence expresses. The sentence is objective; the thought is subjective, the result of an act of the mind.

7. *What use should be made of the text by the pupils in studying grammar?*

The pupils use the text as the source of the material illustrating all the facts of the subject. The text should present all the different points that are found in the structure of the sentence, and these should be fully illustrated by a large number of examples.

SCIENCE OF EDUCATION.

1. *What view is advanced in the Republic as to the nature and origin of the state?*

The state arises out of necessities, for the benefit of life, especially good life. It arises with a view to exchange of services between individuals by division of labor based on natural suitability for different functions.

2. *What is the value of gymnastics and music in education, as considered by Plato?*

The joint aim of music and gymnastics is to train the cultured and manly man, who alone is in the full sense musical, or a harmonious nature. The actual body, the muscular and organic system, must, indeed, be made serviceable. Music should have its effects on the morals, on the "spirit."

3. *"If they (the poets) imitate at all, they should imitate the characters, which are suitable to their profession—the temperate, holy, free, courageous, and the like; but they should not depict or be able to imitate any kind of illiberality or other baseness, lest from imitation they should come to be what they imitate. Did you never observe how imitations, beginning in early youth, at last sink into the constitution and become a second nature of body, voice and mind?" Discuss this question from the Republic from an educational standpoint.*

It suggests the importance of selecting teachers whose speech, action, habits or general characteristics it would be no mistake for pupils to imitate.

4. *Define wisdom, courage, temperance and justice as used in the Republic.*

(a) Wisdom is the central development or the capacity which, in fact, is the mind, and which must make itself evident for good or evil, in every human creature. The wisdom of an individual is his conception of his station and its duties, determined by his training, and involving a conception of society and the purpose of life. (b) Courage is manliness; the characteristic that makes man act from a sense of duty; that causes a man to do that which is right even though it be to die fearlessly on the battlefield. (c) Temperance is soundness of mind, control of self; an element that keeps rule with reason when desire asserts itself. (d) Justice is "rightness of things" embodying honesty, pity, loyalty, truthfulness and dutifulness to God and man.

5. *What qualifications should the rulers of the State have?*

They should be just, temperate, courageous and wise. (See Plato, p. 249.)

HISTORY.

1. *What is your estimate of the character and service of Alexander Hamilton? Write not less than 200 words. Give the sources of your information.*

Alexander Hamilton, by general consent, ranks first in ability of American statesmen of the old school. As Washington's military secretary, he displayed precocious ability as a negotiator in delicate affairs and as a writer of dispatches, at the same time distinguishing himself in the field. As a witness of the military mal-administration of Congress and the consequent sufferings of the army, he must have had the need of a strong and capable government forcibly impressed upon his mind. When the time came for bringing order out of the political chaos which followed the revolution, his was the leading and informing spirit. He was the most zealous supporter of the constitutional union, and as a principal writer in "The Federalist," its foremost defender. To exalt the Union above the States, thereby enlarging the authority of the central government, was his steadfast aim; and for his zeal in this direction he was accused by his opponents of a design to introduce monarchy and aristocracy. As Secretary of the Treasury, he, with wonderful ability, got the finances, the state of which had seemed desperate, into order; averted bankruptcy and repudiation; induced Congress, not only to meet the federal debt, but, what was much more difficult, to assume the war debts of the States; funded the entire debt and made provision for the payment of the interest; restored the national credit, the soundness of the currency, and with them, commerce and prosperity.

2. *Sketch the history of New Jersey, and its final separation from Pennsylvania.*

The country between the Hudson and the Delaware was a part of New Netherland; it has therefore no name or separate history until it came into the possession of the Duke of York in 1664. More than forty years before this time, however, the Dutch had built Fort Nassau on the Delaware, and established a trading-post at Bergen, a little to the west of Manhattan.

Island. Aside from a few isolated homes in the southern part near the Delaware, and in the region of Bergen, the country was a wilderness when it came into possession of the English. The Duke of York sold this part of his grant to Lord Berkeley and Sir George Carteret who had been governor of the island of Jersey. New Jersey was divided by the proprietors into two parts, known as East and West Jersey, Carteret taking the east and Berkeley the west. Carteret's settlements clustered around Newark in the region of New York. The settlers were largely Puritans and Scotch Presbyterians, drawn thither by the broad invitation of the proprietor. No restrictions of religious worship were permitted. The people were allowed to legislate for themselves. Berkeley sold his interest to some English Friends. Quaker settlements were made on the Delaware in the region of the present site of Trenton. West Jersey soon became a prosperous colony. East Jersey finally (1681) came into the possession of William Penn and a number of his Quaker friends. But disputes over land titles became so numerous that the proprietors finally, in 1702, surrendered their rights to the English government.

3. *What have been some of the effects in Indiana of the construction of better country roads?*

The general effect has been a greatly increased communication between the town and the country, thereby enhancing the interests of the people of each section by enlarging their acquaintance and by increasing their knowledge of each other's affairs that are of mutual interest. By good roads, the farmers have been benefited not only by the increased value of their farms, but also by the increased facility gained in hauling their crops to market; in communicating with one another and with other sections of the State; and in attending religious and educational gatherings.

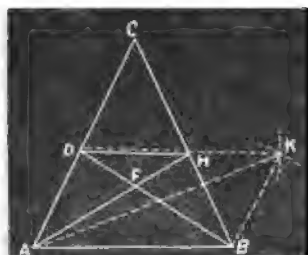
FOOD FOR THOUGHT.

[Send all communications to W. F. L. Sanders, Connersville. Write only on one side of your paper.]

SOLUTIONS TO PROBLEMS.

PROBLEM 39. If the bisectors of the base angles of a triangle are equal, the triangle is isosceles.

Solution by W. W. Moss, Instructor in Mathematics, Brown University, Providence, Rhode Island:



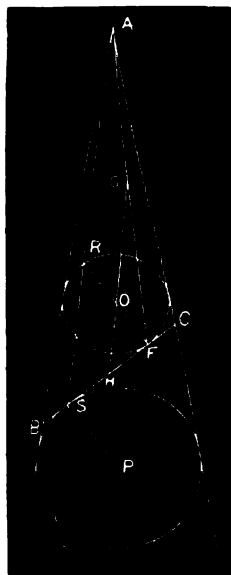
Let ABC be the given triangle, and AH and BD the bisectors of the base angles. Given $AH = BD$, to prove triangle ABC isosceles. Draw $BK = BH$ and $DK = AB$. Join AK and DH . Triangle $DBK =$ triangle ABH , having three sides of one equal respectively to three sides of the other. Therefore, angle $AHB =$ angle DBK , and angle $KDB =$ angle $BAH = \frac{1}{2}$ angle $DAB =$ angle DAF . Angle $ADK =$ angle $ADF +$ angle $FDK =$ angle $ADF +$ angle $DAF =$ angle AFB . Angle $ABK =$ angle $ABD +$ angle DBK

$= \text{angle DBH} + \text{angle AHB} = \text{angle AFB}$. Therefore, $\text{angle ADK} = \text{angle ABK}$. $\text{Angle CAB} + \text{angle CBA}$ is less than two right angles. Therefore, $\text{angle FAB} + \text{angle FBA}$ is less than one right angle. Therefore, angle AFB is greater than one right angle. Therefore, angles ADK and ABK are obtuse angles. Therefore, triangles ADK and ABK are equal, *having two sides and an obtuse angle opposite one of these sides in one triangle equal respectively to two sides and an obtuse angle opposite one in the other triangle*. Therefore, $\text{AD} = \text{BK} = \text{BH}$. Triangle $\text{DAH} = \text{triangle DBH}$, having three sides of one equal respectively to three sides of the other. Therefore, $\text{angle DAH} = \text{angle DBH}$. Therefore, $\text{angle DAB} = \text{angle ABH}$. Therefore, $\text{AC} = \text{BC}$ and the triangle ABC is isosceles.

[When the problem was proposed we published a solution which was afterwards found to be defective. For the benefit of our readers, we have reprinted the above solution from the *American Mathematical Monthly* for June, 1895. This solution is purely geometrical and direct, and satisfies the desire for such a solution provided the italicized proposition upon which it depends can be proved directly. In Mr. Moss's figure, DH and DK are purposely drawn as distinct lines. It can be easily proved that they coincide, but this point is not germane to his solution.]

PROBLEM 219. The straight line joining the middle of the base of a triangle to the middle point of the line drawn from the opposite vertex to the point at which the inscribed circle touches the base, passes through the center of the inscribed circle.—Problem 63, page 469, Phillips and Fisher, Subscriber, Indianapolis.

Solution by W. F. L. S., Connersville :



Let ABC be a triangle; O , the center of the inscribed circle; H , the middle point of the base, and AF , the line joining the vertex to the point of tangency, F . To prove that the middle of this line, the center O , and the middle of the base are collinear. Extend the sides AB and AC and draw the escribed circle, having the center P . Through the point of tangency S , draw the secant ASL , cutting the inscribed circle at R . Draw the radii OR and PS . By a well known theorem they are parallel; BC is perpendicular to PS . Extend RO to F . RF is perpendicular to BC , because it is parallel to PS . As BC is a tangent, RF is perpendicular at the point of tangency. Bisect BC (or SF) at H . Join O and H . OH is parallel to AS because O and H are the middle points of the sides FR and FS . Join A and F . Produce HO until it meets AF at G . G is the middle point of AF because a line drawn from the middle point of FS , parallel to SA , will bisect FA . Therefore, H , O and G are collinear.

PROBLEM 220. A stake 10 ft. long stands at an angle of 45 degrees. A horse is hitched to the top of the stake by a rope 50 ft. long. Over how much area can the horse graze?—J. E. LUNG, Geneva.

Solution by D. M. DEEG, McCutchanville :

ABC is a right triangle whose hypotenuse AC represents the stake, whose leg AC represents the perpendicular distance from the top of the stake to the ground, and whose leg BC represents the projection of AC upon the ground. AD meets BC produced at D. $AB = BC$, being opposite equal angles. $AC = 10$ ft. and $AD = 50$ ft. $AB^2 + BC^2 = AC^2 = 100$. Then, $2AB^2 = 100$, and $AB = \sqrt{50}$. $AD^2 - AB^2 = BD^2 = 2450$. Then $BD = \sqrt{2450} =$ the radius of the circle over which the horse can graze. Area of circle $= (2\sqrt{2450})^2 \cdot 7854 = 7696.92$ sq. ft.

PROBLEM 223. In the base AC of a triangle ABC take any point D ; bisect AD, DC, AB, BC, in E, F, G, H respectively ; show that EG is equal to FH.

Solution by HOWARD W. WOLFE, Atwood :

Let ABC be the given triangle with base AC. Bisect AD, DC, AB, BC in E, F, G and H, respectively. In the triangles BCD and BAD, HF and EG are both parallel to BD and equal to one-half of BD, because the line joining the middle points of two sides of a triangle is parallel to and equal to half of the third side. Hence, $HF = EG$.

PROBLEM 224. If the side BC of a triangle ABC be bisected in D, and the angles ABD, ADC be bisected by the straight lines DE, DF, meeting AB, AC, in E, F, respectively, show that EF is parallel to BC.

Solution by WILL D. RINGER, Williamsport :

Let ABC be the triangle, and D the point of bisection in BC, and DE, DF, the bisectors of the angles ADB, ADC. To prove EF parallel to BC. $FC : FA :: DC : DA$ and $EB : EA :: DB : DA$, by Wentworth, Book III, Prop. 3. $DB = DC$ by construction. Therefore, $EB : EA :: DC : DA$. Therefore, $EB : EA :: FC : FA$. Therefore, EF is parallel to BC, by Wentworth, Book III, Prop. 2.

[An excellent solution giving every detail in a very careful manner was sent in by Miss Alice Addington, of the Geneva High School.]

PROBLEM 225. The pendulum which beats seconds is 39.1375 in. long ; how many times per hour will a pendulum 1 yd. long oscillate ?

Solution by J. C. GREGG, A. M., Brazil :

Calling the time of one vibration of a pendulum 1 yd. long, t , we have,
 $1 : t :: \sqrt{39.1375} : \sqrt{36}$. Therefore, $t = \frac{\sqrt{39.1375}}{6}$. Then, $3600 \div t = 3753.6$ times, answer.

PROBLEM 226. Determine the depth of a conical glass 2 in. in diameter across the top, that 12 of them may contain a pint.

Solution by ID. :

Let h = the required depth. Then, $\frac{3.1416 h}{3} =$ the contents of the cup.
 $\frac{12(3.1416) h}{3} = \frac{231}{8}$. Therefore, $h = \frac{231}{32(3.1416)} = 2.2978$ inches.

PROBLEM 227. A regiment of militia containing 594 men is to be raised from three towns, A, B, C. The contingents of A and B are in the proportion of three to five; and of B and C in the proportion of eight to seven. Required, the numbers raised by each.

Solution by W. R. CURTIS, Hobart :

The number A raises = $\frac{3}{8}$ of number B raises = $\frac{3}{8}$ of number C raises. Number B raises = $\frac{7}{8}$ of number C raises. Number C raises = $\frac{7}{8}$ of number C raises. Therefore, $\frac{3}{8}$ of number C raises = 594; $\frac{3}{8}$ of number C raises = 144, number A raises; $\frac{7}{8}$ of number C raises = 240, number B raises; $\frac{7}{8}$ of number C raises = 210, number C raises.

PROBLEM 228. A farmer bought calves, sheep and pigs to the number of 100 for \$100; the calves cost $\$3\frac{1}{2}$ each, the sheep, $\$1\frac{1}{4}$, and the pigs, $\$1\frac{1}{2}$ each; how many did he buy of each?

Solution by J. E. LUNG, Geneva :

Let x, y, z = calves, sheep, pigs. Then, $x + y + z = 100$, $\frac{7x}{2} + \frac{4y}{3} + \frac{z}{2} = 100$. Eliminating z, we have $18x + 5y = 300$, $5y = 300 - 18x$. If x = 5, 10, 15, y = 42, 24, 6, and z = 53, 66, 79.

ANSWERS TO QUERIES.

QUERY 52. Can a man be elected president for more than two consecutive terms, according to law? (Aber School, Adams Co.)

He can; but this is not likely to occur on account of the well known precedent established by Washington.

QUERY 62. What is the difference between the theme and the central thought of an essay. (Subscriber, Knox.)

Theoretically they are the same, and shou'd be.

QUERY 63. Who was the author of the Missouri Compromise? Give authority.

Mr. Jesse B. Thomas, a senator from Illinois, was the author of the Missouri Compromise. References: Blaine's "Twenty Years of Congress," Vol. I, p. 17; Lord's "Beacon Lights of History," Vol. 7, p. 363; Hart's "Formation of the Union," page 240. (Tecumseh Kilgore, Muncie.)

SOLUTIONS REQUESTED.

[Solutions that are requested will always receive prompt attention.]

PROBLEM 7, page 327, Complete Arithmetic.

SOLUTION:—A's skill is $\frac{3}{8}$ or $\frac{3}{8}$ of B's; that is, B's is $\frac{3}{8}$ of A's.

A's skill is $\frac{1}{8}$ of B's; that is, B's is $\frac{1}{8}$ of A's.

$\frac{3}{8} = \frac{3}{8}$; $\frac{1}{8} = \frac{1}{8}$; $\frac{3}{8} + \frac{1}{8} = \frac{4}{8}$.

Out of 118 games—

B would win $\frac{3}{8}$ of 118 = 64,

C would win $\frac{1}{8}$ of 118 = 54, answer.

CREDITS.

228, C. T. Harmon, Paxton ; 220, 225, 226, 227, D. M. Deeg, McCutchanville ; 220, 227, W. N. Vanscoyoc, New Market ; 220, J. H. Brooks, Bringhurst ; 220, 221, 225, 226, 227, W. R. Curtis, Hobart ; 220, 223, 224, 225, 226, 227, 228, H. W. Wolfe, Atwood ; 220, 223, 224, 225, 227, 228, J. Stommel, Hanover Center ; 220, 227, Willie Essig, Atlanta ; 225, 226 227, S. H. Welty, Nappanee ; 220, 221, 223, 225, 226, 227, 228, C. E. Reid, Winamac ; 223, 225, 226, 227, J. E. Lung, Geneva ; 225, S. W. Meade, St. Louis ; 220, 226, 227, J. D. French, Whiting ; 219, 224, 225, 226, 227, 228, J. C. Gregg, A. M., Brazil ; 220, 226, 228, John Morrow, Charlestown ; 244, Alice Addington, Geneva ; 220, 224, W. D. Ringer, Williamsport,

PROBLEMS.

229. If a quadrilateral circumscribe a circle, the two diagonals and the two lines joining the points where the opposite sides of the quadrilateral touch the circle, will all four meet in a point ? (Phillips and Fisher.)

230. An agent sells flour on 2 per cent. commission and with the proceeds buys goods on three per cent. commission. If he had received 3 per cent. for selling, and 2 per cent. for buying, his whole commission would have been \$300 more. Find the value of the goods bought. (Subscriber, Sulphur Springs.)

231. What shall be the length of the radius of a circle which shall bisect a given circle, the center of the required circle being upon the circumference of the given circle ? (J. E. LUNG, Geneva.)

232. APB and CQD are two parallel right lines, and AP is to PB as DQ is to QC ; prove that the right lines PQ, AD, and BC meet in a point.

233. In the triangle ABC there are drawn AD bisecting BC, and EF parallel to BC, and cutting AB in E and AC in F. Show that BF and CE will intersect in AD.

234. Two clocks are together at noon ; one loses 7 seconds and the other gains 8 seconds in 24 hours ; when will one clock be half an hour before the other, and what time will each show ?

235. A can beat B by 20 yards in a mile race ; B can beat C by 20 yards in a mile race ; how many yards start can A give C that there may be a dead heat ?

236. After a certain number of men had been employed on a certain work for 24 days and had half finished it, 16 more were set on, and the remaining half was completed in 16 days ; how many men were employed at first ?

237. I papered my sitting-room, 18 feet long, 12 feet wide and 9 feet 3 inches high. The room had two windows 3 feet wide and 8 feet high ; two doors, 3 feet wide and 9 feet high ; the base-board extended 6 inches from the floor ; what was the expense, if each piece of paper was 14 feet long, 18 inches wide, and cost 12 cents apiece ? (From Rock Creek.)

238. How far above the surface of the earth must one ascend before he can see one-third its surface ? (J. R. Brown, North Indianapolis.)

239. One man's pace is $2\frac{1}{4}$ feet and another's is $2\frac{1}{2}$ feet ; if they start walking together in step, how far will they walk before they are in step again ?

240. Prove that of any four consecutive numbers one is divisible by 2, another by four, and that one of them is divisible by 3.

241. Prove that the product of any four consecutive numbers is divisible by $1 \times 2 \times 3 \times 4$.

242. Prove that the continued product of any n consecutive numbers is divisible by n .

243. What is the least number which when divided by 8, by 9, by 10, by 12, gives in each case remainder 5 ?

244. What is the least number by which, if $\frac{1}{2}$, $\frac{1}{3}$ and $\frac{1}{4}$ are multiplied respectively, the product in each case will be a whole number ?

MISCELLANY.

NATURE STUDY IN THE SCHOOLS.

Nature study in the schools is what Purdue University is now looking towards. Under the direction of President Smart, Purdue University has sent 2,000 leaflets to teachers, and 1,600 more are on hand and will be sent out early in the fall. The teachers all over the State are taking interest in the subject. W. E. Dodge, of New York, who has been interested in the subject for several years, writes that the publication and distribution of the leaflets "marks a new and wise step in education." They will do much to interest children in agricultural life, he says. "A great problem to our new civilization is to make farm life attractive," he says. W. H. Talman, secretary of the committee for the promotion of agriculture in New York, writes Governor Mount that the Governor of New York has just signed a bill appropriating \$35,000 to be expended through Cornell University in promoting the study of agriculture by the people in the city of New York.

Governor Mount is taking a lively interest in this enterprise and hopes for good results.

AN ART EXHIBITION.

The Citizens' Education Society, of Indianapolis, has inaugurated a movement which seems destined to be far reaching in its influence for good in fostering an art interest in the city of Indianapolis.

From the 15th to the 25th of April there will be held under the auspices of the Education Society an exhibition of unusual interest.

This exhibition will be representative of the art interests of the city. The artists will exhibit their pictures and the architects plans, elevations and decorative details ; the various manufacturing establishments will exhibit specimens of the applied arts such as book covers, artistic printing, lithography, engraving, tiles, terra cotta, pottery, wood carving, metal work, etc.

The art dealers of the city will provide choice casts and pictures to add to the beauty of the collection.

There will also be an exhibition of the work of the public school children in constructive, representative, and decorative art. This work will be graded to represent the stages of development through all the grades and high schools.

Through the kindness of Mr. Louis Prang, of Boston, the society has been able to secure for this exhibition a number of the original drawings of William Hamilton Gibson and Charles Dana Gibson, Abbot Thayer, Frederick Church, Winston Homer and other well-known artists.

The Indianapolis high school is being remodeled and will be completed in time for the exhibition. The vacation for the high school pupils is fixed for the exhibition week, that the entire building may be used for exhibition purposes.

Arrangements have been made with the Street Railway Co., to provide transportation for the pupils at the rate of two a half cents each way; and each pupil will be asked to bring, if possible, ten cents, so that when the street car fare is paid there will be a surplus fund of five cents from each child.

The admission for adults will probably be ten cents. It is expected that the various works of art, a profusion of plants, and the bright faces and pretty costumes of the young people forming reception committees will make the high school a place of wondrous beauty. The society feels confident that there will be a very large attendance of the citizens and a goodly company from surrounding cities and towns.

The receipts will be devoted to the purchase of casts and pictures for the decoration of the school buildings.

GREENTOWN has a curfew ordinance.

THE annual income of Harvard University is \$1,327,360.57.

WHEN you want your address changed please give the old as well as the new address.

CORYDON.—Good reports come from Corydon under the superintendency of Jesse W. Riddle.

IN SENDING pay for the JOURNAL do not send checks on banks in small places. It costs ten cents to collect them.

THE Michigan State Normal School, at Ypsilanti, of which R. G. Boone is principal, will hold a summer session opening June 27.

CENTRAL NORMAL at Danville publishes a *Students' Quarterly*, which is of special interest to all old students and friends of the school.

THE JOHNSON COUNTY NORMAL will be held at Franklin, beginning June 20th. E. N. Canine and O. P. West will be in charge of it.

THE TRI-STATE NORMAL, at Angola, is still sustaining its high grade of work. This school takes pride in the quality of work it does and challenges inspection.

THE alumnae of Vassar College have raised \$90,000 for their *alma mater*,

\$50,000 of which will be used for the establishment of a Maria Mitchell chair of astronomy.

The Educational News, edited by H. A. Mumaw, of Elkhart Institute, contains matters of general interest, as well as that which pertains directly to the school.

THE next National Superintendents' Convention will meet at Columbus, Ohio. This statement was omitted from the short report of the meeting in last month's JOURNAL.

THE Delaware County Summer Normal will open in Muncie, June 20, under the direction of W. H. Masters, D. T. Weir and W. E. Erwin. Several courses of study are offered.

The Normal Quarterly is edited by the faculty of the Southern Indiana Normal College, at Mitchell. For a copy, or for information in regard to the college, address the President, D. B. Gilbert.

OUR readers will be interested in the plan which Messrs. E. L. Kellogg & Co., of New York announced in this JOURNAL last month, for supplying valuable libraries to teachers on the installment plan.

THE Spencer County Normal, under the direction of County Superintendent A. C. Huff, will open in Rockport, May 23. The principal instructors will be W. F. L. Sanders, F. S. Morgenthaler and O. P. Foreman.

KOKOMO.—The new high school building is completed and occupied. School is doing well with an increase of forty-four over corresponding term of last year. J. Z. A. McCaughan is principal and H. G. Woody is superintendent.

LEBANON is "all right," and schools are in good condition. The high school will graduate this year the largest class in its history. The board has re-elected for next year, Superintendent J. R. Hart and his entire corps of teachers, so far as they desired to remain.

HAMILTON, OHIO.—Recently S. L. Rose, superintendent of the Hamilton schools, and seventy-seven out of his eighty teachers, spent two days in visiting the Indianapolis schools. Mr. Rose said that they had come for suggestions and instruction and had got both.

CLINTON.—Clinton is in good shape educationally. The enrollment is larger than ever before and the high school is three times what it was three years ago. D. C. Shoff, of the Illinois Normal University, is principal of the high school and H. P. Leavenworth is superintendent.

PLYMOUTH has recently dedicated a new school building. The dedicatory exercises were elaborate and highly entertaining. The building is modern and well adapted to the purposes for which it is intended. Superintendent R. A. Chase is proud of it as he has a right to be.

HANOVER COLLEGE has recently received a \$20,000 gift from Mrs. M. E. Cogley, of Madison. The purpose of the donor is to found a chair in honor of her deceased husband. The Clarke Chair and the McKee Chair have each received an addition of \$5,000 recently. Good for Hanover.

A NORMAL SCHOOL is in progress in the town of Wallace, Ind. It is under the direction of D. W. Sanders, who has had charge of the graded schools of that town for three years. John W. Schuler, the youngest trustee in Indiana, lends his official aid in making this normal a success.

THE annual catalogue of the Southern Indiana Normal at Mitchell, is at hand. A good showing is made for the school, and it has a successful future before it. It has a faculty composed of earnest, energetic instructors, and teachers who attend there will certainly get value received for money spent.

DO NOT forget to note that the address of Thos. Charles & Co., of Chicago has been changed to 195-7 Wabash Avenue. Mr. Charles is an Indiana man and a former Indiana teacher, and all Indiana people wishing anything in the line of kindergarten supplies or primary school helps should write to him. His firm is absolutely reliable.

FORT WAYNE has had a good year. The schools are doing good work under the direction of Superintendent Study. One hundred forty-three teachers are employed. The high school, of which C. T. Lane has been principal for many years, is one of the best in the State. Fort Wayne has a training school this year for the first time. It is doing good work.

BIRDSEYE has a new school building of which it has reason to be proud. And what is to be further commended, it has a four acre campus, or school yard. A three-year high school course has been organized which will serve as a sort of township high school. R. J. Dearborn is principal of the school and is working hard to make this one of the best schools in Dubois county.

WEBSTER TOWNSHIP, WAYNE COUNTY, is the first in the state to adopt the consolidated system of country schools. One central school accommodates all the children, those living too great a distance to walk are conveyed to and from school at the expense of the township. The results so far are very satisfactory and the plan will doubtless commend itself to other townships.

FRANKLIN COLLEGE.—The annual catalogue for 1897 received shows "old Franklin" to be on the up grade. The college supports a first rate working faculty with W. T. Stott at its head. The facilities for efficient work in all the departments are ample. The library is unusually good. The courses of study are up-to-date. The moral and religious influences are of the best.

ARRANGEMENTS are being perfected in Whitley county to make a practical test of the plan of consolidating the district schools. It is proposed to combine some of the smaller and the contiguous districts, establish a graded school and provide conveyances for the children living within the territory who cannot walk the increased distance. If successful the scheme will be adopted generally over that county.

THE volume of proceedings of the N. E. A. last year, contains not only all the papers and discussions of the general Association and all its departments, and of the Council, but also the report of the Committee of Twelve on rural schools—one of the most important reports yet published. The volume costs only \$2.00 and should be in every teacher's library. Address Secretary Irwin Shepard, Winona, Minn.

THE N. E. A. will hold its next meeting at Washington, D. C., next July. A new feature of the Association will be the arrangement to hold it a part of two weeks with Sunday intervening. This will give teachers an opportunity to see the national capital in its Sunday clothes. The meeting will open on Thursday, July 7 and close Tuesday, July 12. A one fare rate has been secured and a large attendance is expected. Indiana should furnish its quota.

MADISON.—Superintendent McDaniel has favored us with a batch of composition and written exercises from the different grades of his schools. A part of them are illustrated with drawings suggested by the text. Any

one reading these exercises would necessarily come to the conclusion that the teachers were emphasizing particularly, paragraphing, punctuation, and correct expression. These are good things to emphasize. The papers are all highly creditable and some of them are specially good for the grade.

CHICAGO.—The Board of Education, by a vote of 19 to 1, recently adopted the following: "*Resolved*, That the salary of every grammar and primary grade teacher in the public schools of Chicago be increased \$75 for the year 1898 and \$50 per year thereafter until a maximum salary of \$1,000 shall be reached." As it now stands within three years, under the order of the board, all grammar and primary grade teachers will receive \$1,000 per annum, or from \$100 to \$150 a year more than the maximum obtainable heretofore. In the same three years the present differences in salary between the grammar and primary grade of teachers will be wiped out by the common maximum of \$1,000 to which all will be approaching.

INDIANAPOLIS SCHOOL NO. 45.—The writer recently spent a forenoon in the building and made many observations, but has space to note only the following: The building is one of the newest and probably the best district building in the city. Its arrangement and appliances are certainly admirable. Miss Clara Washburn is principal, and that means that the general order and all the appointments are superior, and that the instruction is in accordance with the best thought and the most approved methods. Her associates are all enthusiastic and earnest workers, and all in all, the school certainly ranks high. In the lowest primary grade the skill with which the teacher secured attention and thought was commendable. Very soon after entering, the children could read sentences from the board. Then, as desk work, they would form these sentences with the cardboard letters supplied to each one. A little later instead of reproducing the sentences, the desk work consisted in formulating answers to questions placed on the board. In this work the child must think out the answer and then put it in form. Still later, instead of working with the letters or cardboard, the children would *write* the sentences and answers. Some very interesting work in numbers by means of the Speer devices was witnessed, but it can not easily be described. It must be seen to be appreciated. The *reading* heard, even in the lower grades was entirely free from drawl and "reading tone." Children are not permitted to attempt to read until they are made entirely familiar with the words and the thought. Vertical writing was used exclusively and highly commended. Some teaching of technical grammar was listened to in the fifth grade. The work was most skillfully done and the children were really mastering the principles, but it is certainly questionable whether it is best to undertake this subject at that early period of school life. The writer is inclined to postpone the technical part of grammar till the seventh if not the eighth grade. The children in all the lower grades do a great deal of hand-work, in the way of weaving, sewing, plaiting, modeling, drawing, map drawing, coloring, etc.

PERSONAL.

DANIEL RYAN who is in charge of the schools at Fontanet, reports everything in good working order.

W. G. WILLIS, of Buckskin, spent a part of the winter in Alabama on account of his health. He attended the Chattanooga meeting.

REV. WILLIAM CORBY, president of Notre Dame University, has recently died. He was an exceptionally able man, a man of culture, intelligence and broad and liberal views.

J. U. JONES has been re-elected principal of the Trafalgar schools for another year. Mr. Jones has an excellent high school and has succeeded in giving excellent satisfaction.

E. A. GASTON has been superintendent of the Decatur, Ill., schools for *thirty-eight* years, and those who know him well say that he is one of the most progressive men in the State.

MISS MARY TRUEBLOOD who has been instructor in Latin in Earlham College, has been transferred to the chair of pure mathematics to take the place of Professor Morgan, resigned.

W. S. HISER, whose article on penmanship is found on another page, exhibited the work of his pupils at the National Penmanship Contests of 1896 and 1897 and took the third prize in each case.

DR. CHARLES DE GARMO, president of Swarthmore College, has accepted the chair of Pedagogy in Cornell University. His relations with the College have been of the pleasantest, but he proposes to work along the line of his specialty.

F. A. COTTON, State Superintendent Geeting's efficient deputy, has been spoken of in many quarters as Mr. Geeting's successor. Mr. Cotton would fill the place well if he would consent to take it. He would not have to learn its duties.

R. H. HARNEY, superintendent of Boone county, was a soldier in the late war and was in the battle of Chickamauga. He attended the Chattanooga meeting and went over the battle ground with his old commander, General Wilder.

DR. JAS. M. MILNE, the author of a series of arithmetics and for many years principal of the Oneonta State Normal School of New York, has recently lost his place. The faculty, students, alumni and citizens protested vigorously but without effect.

C. M. MCDANIEL superintendent of the Madison schools, and his entire corps of teachers attended the Southern Association at Terre Haute. They spent most of Wednesday in the Indianapolis schools and most of Thursday in the Terre Haute schools. Good.

CHARLES F. COFFIN, at one time superintendent of the New Albany schools, but now a lawyer in Indianapolis, is a candidate before the Republican convention for Secretary of State. He is a man of ability and sound principles and would make an excellent officer if elected.

LUDOVIC ESTES, for many years a teacher in this State, but for several years past a Professor in the University of North Dakota, on a salary of \$2,500, recently died after a short illness. His remains were brought to this State for burial. Prof. Estes was a graduate of Haverford college, was a superior teacher, and above all was a Christian gentleman.

DAVID M. GEETING is on the road most of the time visiting schools and looking after the educational interests of the state. He is a hard worker and is certainly making an excellent Superintendent of Public Instruction. Some of his friends are urging him to become a candidate for a third term, but he has not yet consented to do so.

MISS FLORENCE HIGGINS, who is instructor of elocution at the Northern Indiana Normal College, has been elected to the chair of oratory and the directorship of the department of elocution at the College of Law. Miss Higgins is the only woman on record to occupy such a position. She will still hold her position in the Normal College.

DR. FRANK H. MCMURRY, now dean of the School of Pedagogy, at

Buffalo, has accepted the chair of Theory and Practice of Teaching in the Teachers' College, New York City. This move means the absorption of the Buffalo school by the Teachers' College. Dr. McMurry has a national reputation and will prove a "drawing card" to old Columbia.

ARNOLD TOMPKINS, Professor of Pedagogy in the University of Illinois, but whom Indiana still claims, is rising in the educational world as rapidly as any other man in the country. He has more demands for lectures than he can fill, and his books are meeting with unusual success. His royalty on his books for the last six months amounted to over \$1,300.

WM. H. MAXWELL, for the past sixteen years superintendent of the Brooklyn schools, has been elected superintendent of the schools of Greater New York at a salary of \$8000. Mr. Maxwell is an able man and is recognized as one of the leading educational men of the country. He was president of the National Superintendents' Convention at Cleveland in 1895.

PRESIDENT DRAPER of the University of Illinois, was tendered the Superintendency of the schools of Greater New York. This is a high compliment to President Draper but it is understood that he has declined the offer and the annexed salary of probably \$12,000. The New York schools are in politics and the superintendent can have but little influence for good.

W. B. SINCLAIR, of Stark county, whose name was mentioned last month in connection with the state superintendency, has consented to take the race again if his party so desire. Mr. Sinclair made an extensive canvass last campaign and is known to a large number of Indiana teachers. He is a man of sterling worth, and his large experience would enable him, if elected, to do much for the schools of the State.

J. M. SULLINS, superintendent of Tippecanoe county, went into the battle of Chickamauga with five hundred comrades in his regiment, and when he came out only sixty-five of the five hundred were left. When he re-visited the ground where the hardest fighting was done, he was almost overcome with the flood of returning memories. His late visit to Chattanooga was greatly enjoyed, though sad.

P. P. STULTZ, for many years superintendent of the Jeffersonville schools, who is spending this year in Indiana University, as we are informed, will be a candidate before the Republican convention for nomination to the office of Superintendent of Public Instruction. Mr. Stultz was a good superintendent. He has push, enterprise, integrity, backbone, and a whole lot of other things that will fit him to fill the office acceptably, should he be elected to it.

N. C. JOHNSON, who resigned the superintendency of the Cambridge City Schools (after he had been re-elected) to continue his education, will be ready for active work again next year. He secured the degree A. B. at the Indiana University in 1897, but continued his studies as a post-graduate, and at the close of this school year will receive the degree A. B. Pedagogy has been a part of his work. He is qualified to fill a good place and ought to find it in Indiana.

J. J. MILLS sometime ago tendered his resignation as president of Earlham College. His health has for some years been delicate and he felt that he must find lighter work. About this time the Friends' Church of Indianapolis extended him an urgent call to become their pastor. But the trustees of the college raised such a protest that he has finally consented to withdraw his resignation. The trustees have appointed Prof. Brown, Vice-President with a view of relieving President Mills of most of the detail work connected with his office. This was certainly a wise move on the part of the trustees. Earlham College can ill afford to dispense with the services of such a man as J. J. Mills.

PROF. WILLIAM B. MORGAN, who has filled the chair of pure mathematics in Earlham College for many years, has tendered his resignation and will retire to private life. Professor Morgan entered Earlham, then known as The Friends' Boarding School, as a student, in 1847. Three years later, he went to Haverford College where he graduated. He returned to Earlham as a teacher in 1855. He has taught in several other places for short periods but most of the half century has been spent in Earlham College. He has always been a progressive thinker and a hard worker, and Earlham owes not a little of what it has done and what it is, to him. He leaves the college with the best wishes of the students, faculty, trustees and patrons. He has done a noble work and not the least of his reward is the army of devoted friends that now surround him.

BOOK TABLE.

Book Reviews, is the name of a monthly magazine devoted to new and current publications. It is published by the Macmillan Company of New York City. In addition to book reviews it contains current news and items in regard to colleges, prominent educational men, etc. The magazine will be valuable to any one who desires to keep up with what is going on in the educational and literary world.

Vick's Garden and Floral Guide.—The annual catalogue sent out by the old reliable seed establishment of James Vick's Sons, comes to hand in a dainty and tasty cover. The list of seeds and plants covers a large and varied assortment, including nearly everything that can be desired for the garden, the lawn, the greenhouse. Valuable new varieties are offered as well as the thoroughly tried and improved standard sorts. Vick's novelties are noted for their uniform excellence. If you are not a customer of this firm send for their catalogue. It is free to all applicants. Address James Vick's Sons, Rochester, N. Y.

LIPMAN'S GERMAN SELF-INSTRUCTOR is a practical manual for imparting the ability to converse in German without a teacher. Prof. Lipman is a practical teacher and this book has grown out of his experience. His theory is that the language and not the grammar of the language should be taught first. The old methods taught students to read German, (a little) but did not teach them to speak it. The author of this book makes conversation the first and principal thing. As fast as words are learned they must be used. The book is full of suggestions and good advice. If a person wishes to learn

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This preparation by its action in promoting digestion, and as a nerve food, tends to prevent and alleviate the headache arising from a disordered stomach, or that of a nervous origin.

Dr. F. A. Roberts, Waterville, Me., says: "Have found it of great benefit in nervous headache, nervous dyspepsia and neuralgia; and think it is giving great satisfaction when it is thoroughly tried."

Descriptive pamphlet free on application to **Rumford Chemical Works, Providence, R. I. FOR SALE BY ALL DRUGGISTS. Beware of Substitutes and Imitations.**

German for the purpose of using it in conversation the plan of the author is without doubt the best one. The method is certainly the *natural* one, and is unquestionably the logical one. It is a good book; if you wish to learn German, get it. The book can easily be adapted to class-room use. Address the author at Indianapolis.

BUSINESS NOTICES.

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FROM Monday, May 16, to Wednesday, June 15, the Indiana Kindergarten and Primary Normal Training School offers a special course of primary work for teachers of some experience. For full particulars address **MRS. ELIZA A. BLAKER**, Superintendent, No. 1003 Coe Street, Indianapolis. 4-2t.

SCHOOL BOARDS contemplating changes can learn the address of the best Western and Eastern teachers, willing to change places, by addressing **Orville Brewer**, manager of the Teachers' Co-operative Association, 101 Auditorium Bldg., Chicago. We can assure all who write of confidence and honorable treatment. 2-tf.

THE INDIANA KINDERGARTEN AND PRIMARY NORMAL TRAINING SCHOOL—Established in Indianapolis in 1882. Forty-five free scholarships granted each term. Two classes formed each year, one in September and one in February. For catalogue and particulars, address, **MRS. ELIZA A. BLAKER**, Superintendent, Indianapolis, Ind. 8-2t.

HARVARD SUMMER SCHOOL.—The authorities at Harvard are gradually increasing the courses offered in their Summer School. This school has become very popular. In the list of 717 students who were registered there last year, are the names of several professors and a large number of superintendents of schools and principals of high schools and grammar schools.

A DECIDED HIT.—"Big Four" Two-Step. For the purpose of advertising the merits of the Big Four we will continue to send to all applicants mailing ten cents (silver or stamps) to cover mailing and postage, a copy of the Big Four Two-Step. We also call the attention of the band and orchestra leaders to the fact that we have had made a splendid arrangement for band and orchestra, and will send to any address, upon receipt of twenty-five cents, a full band arrangement, or upon receipt of thirty-five cents, a full orchestration. (Mark envelope "Two-Step.") **E. O. McCormick**, Pass. Traf. Mgr., or **Warren J. Lynch**, Asst. Genl. Pass. and Ticket Agt., Cincinnati, O. Mention this paper when you write.

KLONDIKE GOLD FIELDS OF ALASKA.—Now is the proper time for all people contemplating making a trip to Klondike to get information. Write the undersigned or call on Big Four agents for circulars and advertising matter pertaining to rates, routes, sailing of steamers, equipment, baggage, supplies and all detailed information. E. O. McCormick, Pass. Traffic Mgr., or Warren J. Lynch, Asst. Gen. Pass. and Tk. Agt., Cincinnati, Ohio.

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For teachers who are endeavoring to improve in knowledge, increase in power, and secure a more vital contact with the progressive spirit of their professions.

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Classes will be organized in almost every variety of subjects, and preparations are being made to excel all former efforts in the spirit, variety, and efficiency of our work. Experienced teachers thoroughly imbued with that spirit which has so long characterized the work of the "Old" Normal will be in charge of every class and those who attend will not only be afforded opportunities of entering classes in which the best modern methods of teaching in all grades and varieties of public school work will be presented and discussed, but will also be given the advantage of attending classes in which these methods are being applied.

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THE SUPERINTENDENTS' ROUND TABLE is for teachers of all grades and will be attended by Superintendents, High School Principals and teachers from all parts of the Union. Students from 35 states are now in attendance.

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3-41.

Address, **A. H. CRAIG, Mukwonago, Wis.**

INDIANA SCHOOL * JOURNAL

VOL. XLIII.

MAY, 1898.

NUMBER 5.

THE GEETING EDUCATIONAL BILL.*

SUPT. C. L. HOTTEL.

The bill enrolled by the last legislature as Senate Bill, No. 59, and popularly known as the Geeting Educational Bill, is a thing of the past. Its history will be instructive to those who may attempt to influence the school legislation of the future, but the bill itself is shorn of all interest except that which usually clusters around the memory of things once noted for remarkable qualities or large possibilities.

I presume your committee placed this topic upon the program of the Association for the purpose of inducing a general discussion of the needed changes in the school system of the State. It doubtless had in mind the generally received fact that we are nearing the time when our school system will be materially modified by legislative enactment, and, also, the further fact that prior to that time, the more general such discussion becomes among the teachers of the State, the more likely they will be to obtain the modification demanded by the best interests of the schools. And as the Geeting Bill touches all the points upon which we may soon reasonably expect school legislation of some kind, I shall, for convenience, make such parts of it as are of most importance and concerning which there are large differences of opinion as to merit or demerit, the text of the present discussion.

The chief provisions of Section 1 are that "the township,

*Read before the Jay County Teachers' Association.

town and city trustees shall establish and maintain in their respective townships, towns and cities, at least one separate high school into which shall be admitted all pupils who are sufficiently advanced for admission thereto, or who have graduated from the primary schools of the State and who are entitled to the privileges of the common schools of such township, town or city ;" and that "Any township trustee, instead of building a separate high school for his township, may pay the tuition of pupils of his township competent to enter a graded high school, to another school corporation, if he can make suitable arrangements with such other corporation."

These provisions ought to receive the endorsement of the people of the State, because, (1), they provide for an urgent need ; (2), no better method of supplying this need has been presented ; and (3), these requirements have already been tested by a number of the best school counties of the State, and have been found popular and wise. This last reason is sufficient to counterbalance many well founded theoretical objections, for the world is full of the wrecks of theories once deemed logical and firmly established. It is, therefore, the cumulative wisdom of the ages that "an ounce of experience is worth a ton of theory." Moreover, it needs no argument to prove that, as a means of self-preservation, the State should give to every child the easiest opportunity possible to pursue, at least, a few branches in addition to those now taught in the primary schools.

"In Section 2 is found the following clause : "No person shall be eligible to or shall hold the office of county superintendent unless he holds at the time of his election a life or professional license to teach in the public schools of the State, or a special certificate, (to be valid for a period of four years, if not revoked by said Board), to be called a 'County Superintendent's Certificate,' issued by the State Board of Education, or have served one full term as county superintendent in some county in this State immediately preceding the date of his election ; but on and after the first Monday in June, 1901, no one shall be eligible to the office of county superintendent unless he hold a county superintendent's certificate at the time of his election."

That the superintendent of the public schools of a county should possess a high degree of scholastic attainment and professional ability, can not be questioned. It is certainly necessary

that he understand the laws that govern mind-development, and the means to be used in producing that development, not only in the primary schools, but also in secondary schools and in the colleges; for the first steps in education should be made with reference to all that logically follow, even though it be known that the pupil will not enter the secondary school. The end should be seen from the beginning. He who directs the first step should be able to direct the last. The interests committed to the county superintendent are so vast and so vital that we can not be satisfied theoretically with any standard of qualifications below the highest attainable. Thus far all agree. The question of accepting or rejecting this clause, however, turns upon the method of applying such standard. Can it be applied through an examination of the candidates by the State Board of Education?

Those who oppose this provision believe that any method of examination would fail to secure competent men; that it would work an unnecessary hardship upon a number of men who are now filling the office acceptably; that the present method of selecting a county superintendent has given us as efficient men as the salary paid would secure; and that the phenomenal success of our schools since '73 does not justify the change proposed.

It is usually replied to these arguments that, while an examination would not reveal all the qualifications necessary in this officer, it would certainly reveal two of them, leaving the others to be ascertained by present methods; that it would insure in candidates the possession of the necessary scholarship and professional ability; that no hardship would befall any competent man now filling the position, because he is exempt from the necessity of an examination for four years, and within that time he would have ample opportunity to prepare himself for it. Also, it is claimed that in the hands of as conservative body of men as compose the State Board, the law, in those special cases, if there be such, would be judiciously applied. Few laws, indeed, can be applied literally without working a hardship upon some one, and on this account legislators and courts of justice always consider the personal equation that must necessarily enter into the execution of the great majority of laws.

In regard to the third and fourth objections, it is admitted that they possess much apparent force; but it is claimed, in turn, that while there has, perhaps, been no time in the past when this

provision would have been wise, conditions have changed, and it would be wise now.

Let us examine this counter claim as fairly and as fully as possible, to ascertain whether or not it rests upon a solid basis.

Have changes occurred, and, if so, are they of such a nature as to justify a change in our educational system, or a modification of it?

Before seeking directly the answer to this question, we should determine the real force of the argument against this clause, based upon the past progress and present efficiency of our schools. If it be found that the county superintendency has been the sole cause, or even the chief cause, of this progress and efficiency, then the argument has much force, and without extended discussion, we might conclude to "let well enough alone;" but if it is found that other agencies springing from sources independent of the county superintendency, have been potent in advancing the cause of education, then the argument loses force, and in proportion to the number and potency of such other agencies.

Among the agencies, which have either sprung into existence or taken on new life in the last three decades, are, the increase of wealth, whereby schools and school facilities have increased in various ways; the cheapening of books and all forms of literature by the magical development of the art of printing; the extension and perfection of the mail service until the daily paper is laid at almost every door even in the rural districts, and the magazine, once the exclusive property of the few, now read by the millions; the multiplication of works of art; the extensive multiplication and enlargement of the lecture platform, that wonderful educator of the populace; the better education through our colleges and various other agencies of our ministers; the ever increasing growth of mind power, which in a growing civilization is, both from inherent and external causes, always present—all these, and more, have been mighty forces in building up our schools. Aided by these forces, the public schools in states which have no county superintendency, are highly prosperous.

Returning to the question of changed conditions, it may be noted: *First.* There is plenty of material in each county from which to select men possessing the ability to pass the required examination. This could have not been affirmed twenty, or even ten years ago. *Second.* The general elevation, through many

agencies, of the character of the work now required, demands for its successful continuance, higher qualifications in the county superintendent than have been required in the past. While there has never been a time when the highest good of the children did not demand the highest qualifications possible, there has been a time when the work done would have suffered less from an inefficient superintendent than it would suffer to-day; just as a boy's "Waterbury" would suffer less from a bungling mechanic, than would a ship's chronometer.

Third. It follows from this that township trustees are less competent to decide concerning the academic and professional ability required in the county superintendent, or possessed by him, than were those of ten or twenty years ago. And this fact is in no sense discreditable to the trustees of to-day. Why should it be? School work has grown away from them. We claim that teaching has become a profession, and that our ideal teachers have professional training. How can a trustee without this training understand the work of the teacher? And he must understand it, in a general way at least, if he would decide intelligently concerning these two essential qualifications of him whose duty it is to supervise teachers. We have long since ceased to permit him to pass legal judgment concerning these qualifications in the teacher; why should he be permitted to determine them in him who must supervise and direct the work of the teacher?

Formulative education moves by steps; that is, while educative work grows gradually, there comes a time when it is said by those who conduct it, "we are ready for a decided advance in matter and method—for another step." The advance is mapped out with reference to past conditions, present demands, and future possibilities, and the step is made. The process itself is a growth, but the outline of the process, and its commencement is a well marked event. Such a step was taken in '65 and another in '73, and as in '65 and '73, the "fullness of time has come" for another step. Unless we are willing to admit that "once efficient, always efficient," we must in reason, change our machinery as demands are made for changed products.

Until within a few years past, people were permitted to choose their physicians from the number who claimed to understand the healing art. The masses learned, after a long while, that they must protect themselves from their own ignorance. Now, every

man who desires to engage in the practice of medicine, must first satisfy the State that he has the ability to do so. From the number of licensed physicians we select our "family doctor." So should it be in regard to our selection of county superintendents. Let a competent board decide as to the scholarship and professional ability of those who would aspire to that office, and from the number adjudged worthy by such board, let the township trustees select those whom they may find in other ways best fitted for the work to which they may be called. This plan very wisely leaves in the hands of the trustees an important part of the work of selecting a superintendent, a part that could not be done by the State Board, for it can judge only of the scholarship and professional ability of the candidates.

It may be said here, incidentally, that, in general, the arguments which would place the county superintendent under a license system, would place the State superintendent under a similar system. Indeed, they apply with more force to the latter than to the former. The selection of the latter is made by a State political convention. The nomination for State Superintendent is the last one made. Delegates are tired. Many of them have left the hall. Those who remain for this nomination are generally indifferent to all questions concerning the comparative fitness of the several candidates, except those which are of political significance. Frequently a candidate's geographical location secures for him the nomination. If he lives in a part of the State which has not been favored with a nomination, he is almost sure to carry off the coveted honors of this one. There is far more of blind chance in the selection of the highest educational officer in the State by a political convention, than there is in the election of a county superintendent by the township trustees. The State election is of no consequence so far as judging the fitness of a candidate is concerned. Outside a very limited circle of teachers who have advanced far enough educationally, as Arnold Tompkins would say, "to have control of themselves," there is no "scratching." A state convention names the state superintendent.

Fortune has, indeed, highly favored the people of the State by giving them, with possibly only one exception, good State superintendents, men worthy of the honor conferred upon them; and in no case, perhaps, have we been more highly favored than

through the present incumbent ; but fortune is sometimes fickle, at times quite fickle, and it is against these times that wisdom would urge adequate provision.

In Section 3 is found the following clause : " He (the county superintendent) shall study the needs of the township and town schools, and shall have power to designate in what schools teachers employed by town (not having a superintendent), or township trustees, may teach, and may exchange, when he deems it for the best, such teachers from one school to another in such towns or townships."

The county superintendent is presumed to be acquainted with every teacher's work, his ability as a disciplinarian, his social qualities, and his general fitness for this or that school. He is presumed to know the special needs of each school. No other person can know these things so fully as he. And the success of most teachers depends very largely upon their being placed in the right positions.

Section 4 gives evidence of a desire upon the part of the framers of the bill, to do something without knowing just what or why. I can see reasons for holding teachers' examinations in April and May, and in July and August, but none for holding them in January or November. Three or four examinations each year are all that are necessary. A larger number takes the time of the superintendent from duties more important.

Section 5 is so lengthy that I shall not quote it or even enumerate all of its provisions. Nor is it necessary that I should. You are familiar with its chief provisions, namely: That a license issued in one county shall be valid in all others ; that the State Board of Education shall examine all teachers' examination manuscripts, (or cause them to be examined by competent persons), and grade the answers upon a fifty-per-cent. standard ; and that the county superintendent shall grade the "school-room success" of each applicant upon a like standard, the sum of the two grades forming the basis upon which license shall be granted or refused.

The clause giving the manuscript to the State Board for examination and grading is the one of all the section to which many teachers seriously object. There are doubtless some reasons why such requirement should not be made, and some reason why it should be. I am in favor of the clause for the especial reason

that its effect will prevent a large procession of would-be teachers, persons who are utterly unprepared as to academic and professional training, from entering the profession. In reply, it may be argued that it is the duty of the county superintendent to prevent this. The law makes this a requirement rather than a duty. Its enforcement should be lodged with the State Board, because through this body it can be enforced without working harm in any way to the schools. If this were done, in ten years the schools would show remarkable advancement from this cause. The fountain must be made pure if the stream be made pure. And the fountain can be made pure without harm to the stream. The requirements for admission to the ranks of teachers can be made properly restrictive without harm to those desiring to enter or to those who have already entered. Believing that this clause would work no harm to any reasonably successful teacher already in the profession, and great good to the schools by preventing the influx of unprepared teachers, I am decidedly in favor of its adoption.

Passing over Sections 6 and 7, as likely to be generally concurred in, I pause only long enough at Section 8, to object to the basis upon which is determined the salary of the county superintendent. If his duties like those of most other county officers depend largely upon the population of a county, the basis would be a measurably just one. But as a matter of fact, the duties of the superintendent of Jay County are just as laborious, and his qualifications should be of as high order as those of the superintendent of Wayne County, yet, under this section, the latter would receive \$500 more than the former for a year's service.

Section 9 provides for the election of school superintendents of towns and cities, for a term of two or four years, as the trustees may desire; and that such superintendents shall possess a life or professional license to teach, or a special town or city superintendent's certificate.

The first clause has but little, if anything, to commend it. Practically it is unimportant. The latter clause is justified, in general, by the same arguments that demand that the county superintendent should hold such license or certificate.

Section 10 provides that "The State Superintendent of Public Instruction, the President of the State Normal School, the Superintendents of the three largest cities in the State, the President of

the State University and four citizens of the State appointed by the Governor, two of which shall be County School Superintendents, shall constitute a Board to be denominated the Indiana State Board of Education."

Around this clause the battle-standards of the contending hosts gathered last winter. The battle waxed hotter over this portion of the bill than any other. The non-state schools demanded that the majority of the State Board be composed of men who are not connected with the public school system. They claimed that all incentive toward selfishness of action be, if possible, removed. This claim seems to be founded upon a principle which has ever been zealously guarded by the people of our republic. The justice of the claim, in the abstract, may, and must be granted. But the further claim that the Board as proposed in this section, or as now existing, is not in accord with the principle of justice as applied to the non-state schools, admits of question.

Out of eleven men composing the proposed Board, but three are connected with a State School. Eight of them, can not, in reason, be thought to be influenced in any way by selfish motives, for no such motives exist. They are not chosen by partisan electors. In all probability under this section, as under the present law, a majority of these men would be alumni of non-state schools. The belief that they would, through mean or narrow motives, harm a single one of these schools, is without foundation. Nor have I seen any convincing argument that the president of any State school, chosen as he is for breadth of scholarship, manliness of character, and special fitness for educational leadership, would lift his hand against any educational institution or agency whatever. If it be admitted that such action is possible, it must at the same time be admitted that it is in the highest degree improbable. Under any conditions, the votes of these men would count but as three to eight. Moreover, two of the members appointed by the Governor may be members of the faculties of two non-state schools.

The question of the ability of the members of the proposed Board to discharge the duties incumbent upon them, can not be raised. When we reflect that the best school men are to be found among the men actually working in the schools, rather than among men whose instinctive tastes have led them into the profes-

sion of law, or medicine, or into the ministry, or into some of the other professions, it is difficult to conceive of a better class of men for members of the State Board, except possibly as to two of them, than those placed there by this section. Nine of them must be practical school men.

The granting to the Governor the power to appoint four members of the Board was, in my judgment, an error. Certainly it was a mistake to permit him to go outside the circle of active school men, to find two of them. This was a concession to the denominational schools that could be justified only upon the grounds of a necessary compromise.

The brief time given me does not permit a full discussion of the topics presented. I believe a thorough examination of the Geeting Bill, while it may not be perfect, would insure the conclusion that it deserved a better fate than it received at the hands of the last legislature. I believe further, that the next ten years of the school history of Indiana will justify this conclusion.

MUSIC IN INDIANA SCHOOLS.

W. E. M. BROWNE, SUPERVISOR OF MUSIC, NEWCASTLE.

In the winter of the year 1890 the writer, to procure material for a paper on "Music in the Public Schools," made a canvass of the State among the leading city and town superintendents, with a view towards voicing the general sentiment of educators, and showing the actual work being done in Indiana schools along the line of music science.

The result was not only alarming, but to music people, disheartening; and a campaign of agitation was begun by the committee of music supervisors appointed by the Music Teachers' Association.

The condition, briefly stated, was that only in a bare score of schools was any attention being paid to music, and in a large majority of the counties the idea was scarcely thought of. In most places the hands of anxious superintendents were powerless in face of an adverse sentiment on the part of the school boards and patrons, and even many of the former were opposed to music teaching.

In eight years the change of sentiment among teachers, superintendents, school boards and patrons, has been such that the advance can hardly be believed, and the result of the last canvass is given the public, that educational people may the more fully understand each other, and agree upon future action.

In 1890, the number of different books used could be enumerated on the fingers of one hand, now, fourteen publications are reported in use, the leading ones being less than five years in the field. As reported by the superintendents the following are the books used in city and county schools: Model Music Course, twenty-one towns; Gantvoort's Music Reader, fourteen counties; Natural Music Course, fourteen towns; Educational Music Course, eight towns; National Music Course, six towns; Normal Music Course, five towns; Mrs. Adams's Music Reader, seven counties; Vocal Drill Book, seven Counties; Cincinnati Music Reader, two towns; and the Williams, Loomis, Hanson, American song-books, the Song Manual and Golden Glee, each one town. This tabulation cannot be called correct however, because of the failure of many to report the name of book used, but it is given to show the diversity of text-books and popularity of the later works on school music.

Music is taught in the counties of the state as follows: Adams, two-thirds of district, one city. Allen, fifty districts, three towns. Bartholomew, Columbus only. The teachers of this county at their holiday meeting voted to have music taught in the country schools. Benton, just waking up and preparing for it. Boone, twelve districts, fourteen towns. Many want it, and others are willing, but object on account of crowded conditions. Carroll, County Board advised all teachers to teach music, many do not; Carrollton and Burlington townships have a special teacher. Clark, twenty-five districts, two towns. Clinton, about one hundred districts, one city. Crawford, eighty-eight districts, four towns. Daviess, twenty-five districts, three towns. Dearborn, in all schools, State Manual is used. Decatur, a majority of teachers are attempting the work and doing their best. A greater professional spirit and township supervisors are suggested as an element of success. Dekalb County, eighty districts, one city. Delaware, seventy-five and one-half districts, one city. Dubois, "Notes and Vocal Music are taught in nearly every room in the county." Fayette, about forty districts, four towns. All

seem willing to teach it and are preparing themselves for it. Floyd, thirty districts, three towns. Fountain, forty districts, two towns. Franklin, eighty districts, seven towns. Fulton, six districts, two towns. Gibson, one hundred and seventy districts, two towns. Green, one hundred districts, ten towns. Hamilton, one hundred and fifty districts, three towns. Hancock, nine districts, one city. Hendricks, ninety districts, all villages. Henry, one hundred districts, nine towns. Howard, fifty districts, three towns. Huntington, ninety districts, five towns. Jackson, "almost all" are teaching it in some form. Jasper, fifty-seven districts, four towns. Many teachers cannot sing. This is a drawback. Jay, fifteen districts, three towns. Jefferson, eighty-five districts, five towns. An effort is being made to place the work on a more satisfactory basis. Jennings, about one hundred districts, one town. Johnson, one hundred districts, three towns. Knox, seventy-five districts, one city. Kosciusko, about "one half of the country schools." LaGrange, fifty districts, nearly all graded schools. Lake, one city, prospects not bright in this county. LaPorte, two cities. Lack of musical talent seems to prevail. Lawrence, all schools are required to teach music. Marion, ninety-eight districts and city of Indianapolis. This is a general move for Marion county, and those teachers who know music are succeeding well. Marshall, one hundred and thirty districts. Suggest a "hammering campaign" for teachers. Martin, not to any great extent. Change of conditions hoped for. Miami, about one hundred districts. Monroe, one city. Montgomery, only in a few cases. Sentiment not yet aroused among people. Noble, one hundred districts, six towns. Ohio, not any. The sentiment is against it. Orange, twenty per cent. of district and one town school. Owen, fifty districts, two towns. The advance along this line has been made the past two years. Parke, about twenty-five districts. Perry, none. Suggest a common text book for all schools. Pike, none, lack of musical knowledge and practice stated as the reason, and hope for a revival of music in the county. Posey, one city. Pulaski, seventeen districts. Randolph, all districts. All teachers are required to pass in music, and to teach same. Two townships have a special teacher. Ripley, all districts, one city. Rush, fifty or more districts, seven towns. The teachers are working to equip themselves. Scott, not taught much. Senti-

ment not favorable. Shelby, none. The sentiment seems to be against it. Spencer, twelve districts. He says "push it." Starke, eighty-two districts, one town. St. Joseph, thirty-two districts, three cities. Steuben, in one city. People are not thought to be ready for it in the country schools. Sullivan, a majority of teachers are doing some work in music, but not fully prepared. Switzerland, one town. Too much opposition, which only an increase of wages may dissipate on the part of the teachers. Tippecanoe—Music has been ordered taught in all schools of the county. Tipton, seventy-three districts, nine towns. Union, about one-third of districts and one town. A text has been adopted and the trustees will put in special teachers as fast as practicable. Vanderburgh, two townships, one city. Both have music supervisors. Vermillion, not taught. Program too crowded, the tendency toward music is growing. Vigo, last year the county had a supervisor and assistant, but this year no general action was taken. Three or four townships have a special teacher. Wabash, "many" of the districts, two towns. Warren, nearly all the country districts, two towns. Warrick, in most schools elementary music is being taught. Washington, about sixty districts, most of the towns. Wayne, sixteen districts, three towns and one city. Wells, twenty six districts, one town. White, sixty one districts, seven towns. Whitley, nearly all district schools are making an effort. Eleven counties were not heard from, and Cass county gave no information.

Probably the most interesting feature of this report is the large sentiment among school people in favor of music, and the rapid strides toward universal adoption which is being made among country schools. Of the eighty counties quoted above, all but twelve answer "yes" to the question, "Do school officers and teachers as a rule favor the addition of vocal music to the course of study?" Of these Bartholomew, Lake, Shelby, Montgomery, Scott and Switzerland answer flatly "no." Ohio, Orange and Hancock "did not know," while Boone, Martin and Monroe report a divided opinion.

The question, "Is an effort towards bringing about its adoption in your schools probable," brought affirmative answers in every case except fifteen. Bartholomew, Boone, Lake, Ohio, Parke, Pulaski, Rush, Shelby, Steuben, Switzerland and Vermillion answering "no," and Crawford, LaPorte, Montgomery and Perry avoiding the question.

The above report is submitted without comment, because of its length. It will show for itself the great growth of sentiment favoring music in the country schools.

The next communication will deal with city and town schools showing a list of special teachers in the state.

ABUSE OF METAPHORS.

[Chapter from "*Some Common Errors of Speech*" published by G. P. PUTNAM'S SONS, New York.]

At every stage in the growth of a language and of its literature there are certain metaphors which are current and are understood, but which have survived whatever usefulness they may have had. They were, perhaps, picturesque once: they presented a thought in a striking way, or fixed the mind very strongly on one particular aspect of a subject; but by dint of reiteration they have become wearisome. They have ceased to add force to a presentation; and the moment they fail to add clearness or force they become mere encumbrances, not only useless, but harmful. It would be easy to make a long list of them. A few of them are: iron horse, iron heel of tyranny, leaden hail, procrustean bed, ship of state, upas tree, saturnalia, holocaust, phoenix, perhaps, also alma mater. Some of these are seldom met with now, perhaps never, though they once moved in very respectable company. Others obtrude themselves on us daily in the newspapers and magazines, and not a few find their way into college orations, sermons, and political platforms.

Besides the metaphors that are worn out, there are others that never were good. They are based on a false analogy. They assume a resemblance between the thing represented and the thing representing it that does not exist; or they are based on a resemblance in some aspect or quality which is only an accident and not an essential.

Tidal-wave, as a name for a swift and powerful movement of opinion or feeling, is such a metaphor. If an election turns out the party in power, a tidal wave is said to have swept the country. The context always shows that the writer is thinking of the tidal-wave as something swift and terrible. It is, in fact, no such thing, however, but only a very gentle rise and fall of the water of the ocean, through a height of half a dozen feet in twelve

hours. It is, indeed, not perceived as a "wave" at all, except by the eye of science. The fact seems to be that the name tidal-wave was given, in mere ignorance, to one of those rare and formidable disturbances of the ocean that are caused by earthquake-shocks or volcanic eruptions, such as the memorable wave that followed the fall of a large part of the volcano, Krakatoa, into the sea, and that, as the name sounded mysterious and imposing, it continued to be used, to give dignity to comparatively trifling events. It throws no light, however, on the phenomenon to which, as a supposed metaphor, it is applied, and when we look for the real meaning of it we find it misleading. A literal expression, as "a great movement of popular thought," "a powerful uprising of the conscience of the people," would carry with it no false implication, and its meaning would be clear.

Akin to the last error is the use of *cyclone* in nearly the same sense. A cyclone, like a tidal-wave, is one of the large and deliberate movements of nature which have very little of terror or destructiveness in them. A cyclone is an atmospheric movement of large extent, often a thousand miles or more in diameter, and throughout nearly the whole of the area that it covers, gentle and beneficent. Cyclones and anti-cyclones are passing over our heads continually, and, except when we happen to be very near their centres, we never think of them as terrible, and hardly know of their existence, save as windy or rainy weather. The thing that the fine writer had in his mind when he called a sudden and violent outburst of national frenzy a "cyclone of patriotic fervor" was not a cyclone: it was a hurricane or tornado; but there was something high-sounding and mysterious in the word, and so it seemed to him good.

Carnival is another word that is misused in the same way. When the orthodox Catholic Italians are about entering on their long lenten fast, they allow themselves one period of unrestrained fun before they bid good-bye to the pleasures of the table. But, because they pelt each other with candies and little bags of flour, and take such liberties with each other as at other times they would not venture to take, the metaphor-dealer thinks two or three house-burnings ought to be called a carnival of fire, and half a dozen murders, a carnival of blood. That his metaphor, instead of making clear his meaning, only beclouds it, concerns him little: it sounds well, he thinks. His last misuse of the

word surpasses all previous ones: in a public advertisement which stares at us from the fences, he calls a great sale at a "department store," a "mammoth bargain carnival."

Handicap. To handicap a competitor in a race is to give others an advantage over him by letting them start in advance of him, or by making him carry a load. The essential idea in the word is that there is a contest, and that the chances of the contestants are to be made nearly equal. A person is not "handicapped" in an undertaking when he encounters obstacles, or when he is not properly equipped for his work, unless he is in competition with others, nor even then, if only his own infirmity or bad luck is in the way. The word, therefore, is wrongly used in the following examples:

"For a long time the scientific bureaus of the government have felt themselves badly handicapped by the need of resorting to special examinations." The bureaus may have been annoyed, or hampered, or put to much trouble; but they were not handicapped.

"The new cabinet officers find themselves very seriously handicapped in their plans for reorganizing their departments by the Civil Service law."

"There will be an *orgy* of increased armaments."

"The sin, as it seems to me, would be to feel or fancy ourselves *case-hardened* against the will of our Maker."

"Wall Street had a lesson in this direction which will never be forgotten, during the *brewing* of the disturbance which ended in the Franco-Prussian war."

How bad a figure is the word *thorn* in the following example, is evident at a glance:

"Katarina, which, it is said, will be bombarded, is the port of Ellassona, and, if it falls into the hands of the Greeks, will be a thorn in Edhem Pasha's communications."

A word is, of course, not to be rejected because it is figurative. It is commonplace that most of the every-day words that have no figurative association now were originally figures of speech; that *lady*, *husband*, *king*, *congress*, *parlor*, *person*, and a thousand others meant originally something very different from what they mean now, and that the first use of any of them in its present meaning was a bold and effective metaphor. It is in this way that language has grown, and, to a less extent, still grows.

A metaphoric term, however, if it is going to establish itself as a mere name for something, a new word without its first poetical associations, soon asserts its right to its new rank ; and if it fails to do this soon it has to retire : it is neither a common word nor a metaphor, and it is in the way. Iron road has established itself as the every-day name of the railway in France, Germany, Italy and Spain ; but iron horse has been rejected in all these as well as in England and America, and nobody wants it now, even as a figure of speech. So it is with the other words cited. And it is not the critics only who reject such tattered figures : the common people are just as quick, and the speaker or writer who indulges too much in "fine writing" will often find them smiling at his flights.

As to the question of using or not using a figure of speech that offers itself (it should never be sought for), the best course, perhaps, is to let it stand, in one's first draught, and consider carefully, on revision, whether it shall be rejected. That which can bear the sober second thought—or the soberer third thought—may generally be allowed to pass.

DEPARTMENT OF PEDAGOGY.

DOCTRINE OF APPERCEPTION.

LYDIA R. BLAICH, CRITIC TEACHER, INDIANAPOLIS.

"Much has been accomplished when we know the aim we wish to reach ; but it is of vastly greater value, also to have found the road by which that aim is to be realized."

These are the words of Field-Marshal von Moltke. True as they are, regarding the affairs of the State, they are no less true of the education of the human soul.

The desire to find the right method by which pupils (and pupil as used here means every human being) may be surely and safely guided to the realization of what we believe to be the highest and noblest purpose of life has led to the most careful observations and closest study of the mental process involved in the mind's evolution toward ever widening circles of thought, and hence, life.

The discussion of this process of increasing comprehension,

ever giving an enlarged view, ever broadening the horizon, ever widening the spiritual outlook, employed much of Herbart's attention.

It is the aim of this paper to consider this mental activity, known as apperception. Crudely defined, apperception is that act of the mind by which it gains new ideas with the assistance of old related ideas previously stored in the mind.

The impressions received through the senses never become objects of knowledge, *i. e.*, they are never interpreted until the mind assimilates them. In other words, the mind must change the unknown stimulus from without into a sensation which can be held in the thoughts and compared with previously acquired impressions. Just as soon as a new perception appeals to the mind, its very first work is to call up, above the threshold of consciousness, acquaintances, *i. e.*, one or more ideas whose natures are partially similar to itself. As soon as such are found, the old and the new are at once welded into each other; they coalesce; they interact. The similar part of the new perception is at once recognized by the hosts and through this like part, the foreign portion of the new idea is made intelligently acquainted with the hosts, is welcomed by them and thus it no longer remains a stranger; for its introduction by a reliable acquaintance is sufficient to insure it a friendly reception, whereas without such credentials it would receive no hospitality.

If the new impression, upon knocking at the mind's door, fails to awaken at least one kindred notion, then it produces no effect, for it passes off as water runs from a duck's back. Such is the case when the instructor talks entirely above the heads of his pupils. This by no means implies that all that is presented to pupils must be on their level—indeed, far from it!—for then there would be no progress; but it does mean that there must be pleasant, easy points of contact or relationship between the new instruction and the learner's fund of knowledge. We never could give children a notion of the geography of distant lands unless we first converted the home observations into definite ideas, which become "living forces, standing like armed men in the inner stronghold of consciousness ready to sally forth and overcome or make serviceable whatever new presented itself at the mind's portals."

Sometimes, there are related concepts in the mind, but

through long disuse they have lost their vividness and, therefore, unless the call of the newcomer is intensely loud and long, it fails to awaken the host, and, hence, being unapperceived, it is lost. Such is often the case when a teacher in a higher grade wishes to teach something which hinges on that which has been learned in lower grades but has sunk so deeply below consciousness as to have lost vitality. The thing to do in such instances is, not to condemn the former teacher, but to review the old principle before teaching the new. Old ideas, like tools, must be kept bright for use, and the way to do this is to work them over constantly. We all know of fathers and mothers who are unable to help their children with an algebra solution or a Greek translation because, although they were pupils of high standing, these notions through disuse, have lost their strength.

It is also true that the more meagre the old stock of ideas, the more difficult the apperceiving act ; whereas the greater the number of old ideas springing up to befriend the new, the easier becomes the act of learning.

The mind attempts to find a place for each new perception. Sometimes, an entirely new and unrelated impression is so strong that the individual finds no peace of mind on account of the vain attempt assiduously applied of classifying it. Exhaustion follows ; after a prolonged failure the person is overwhelmed and commits a desperate deed, as in the case of the African native, seeing for the first time the dashing waters of the Indian Ocean and being unable to classify the new experience, threw himself overboard.

It is this apperceptive tendency of the mind that makes children ask over and over, "What is it? What is its use? Where did it come from?" etc.

A simple act of apperception is often very difficult for one of limited experience, as young pupils generally are. How much more difficult then is a demand upon a child, embracing a three or fourfold process of apperceiving activity as is always the case in those transition grades in which the child is prepared for gaining a higher mental power. Perhaps these transition grades are all along the line, but I shall take my illustration from the fourth and fifth grades. Here we really make our first demand of the pupils to apperceive new ideas from the text-book unaided ; where before, the obstacle of the medium of imparting knowledge was removed because the instruction was imparted verbally by

the teacher. The task is far more difficult than asking him to construct images from verbal language. Reading is a fourfold process of apperception: *first*, a series of letters or word pictures must be recognized; *second*, the images of corresponding sounds must arise; *third*, the meaning of the word must be considered; and *fourth*, the relation of the words to each other determines the meaning of the complete mental picture.

Every time an apperception takes place, a double activity is in process; for the new affects the old and vice-versa. Let us first consider what changes the old notions undergo. They may be partial; the new impression completes, amplifies. Often the old knowledge is incorrect; *e. g.*, I believe a whale to be a fish; a new notion corrects this belief. Then again, the new idea extends or limits the meaning of former acquisitions. On the other hand, often a new idea is too weak to make a permanent impression; were it not for the family of relatives already in the mind to welcome the new guest, there would be no new acquisition. Such loss is much greater than is at first apparent, for if many sense-perceptions would thus retire unused, there would be a tendency on the part of the intellect to ignore all but the strongest; as it is, however, the mind is kept alert even for fleeting perceptions.

But apperception becomes still more valuable when we consider how much it colors and enriches the new perceptions—how much it adds to them which is not contributed by the one or more senses employed in conveying them to the mind's door-way; *e. g.*, seeing the light and shade on an object, the mind, without the aid of the sense of touch, is enabled to construct three dimensions: or again, the zoologist who sees one or two bones of an animal at once builds up the whole. So, too, the child learning that North America lies in three zones, can, by means of his stock of notions already acquired, see the plant and animal life and the clothing of the people in the various parts—he does this because he brings to the new fact his capital of ideas gained from every-day, home observations.

Everything new that is presented to consciousness is interpreted by past experience, hence, the difference in the coloring which the same impression gives to different people. No two persons see the same thing, be it a landscape, a poem, an argument or a deed in exactly the same way; for, does not each

observer bring to the new sensation an individual set of stored experiences, each of which alters and enriches the new in its own peculiar way? Describe the Niagara Falls, the Alps, The Colorado Canon to a geography class and there will be as many different mental pictures as there are pupils; the variety being due to the various supplies of ready notions. And so, just as the material on hand may strengthen and clarify the new impression, it may also do just the opposite; *i. e.*, twist it out of all truth and symmetrical proportion, as in the case of the Indians seeing Columbus on his first arrival in America. So too, day and night to the child are caused by the movement of the sun; to the adult, they are caused by the rotation of the earth.

Oftentimes, a crowd of very powerful but inappropriate apperceiving ideas are uppermost in consciousness which put correct apperceptions absolutely out of the question; as is the case with noises heard on sleepless nights.

Thus far, we have spoken of apperception in its intellectual consequences. Before proceeding to other phases of the subject, we shall attempt to restate our definition of apperception. It is that act of the mind by which mental data are harmonized into a related whole, producing certain after effects of perceptions in the mind which will in turn modify all subsequent mental images. Or, we may say, apperception is intellectual cohesion finding relationships among all the ideas that appeal to an individual and converting them into a harmonious family.

Æsthetic appreciation, as well as one's acquisition of knowledge, depends largely upon the previous contents of the mind. A Sistine Madonna, a Parthenon frieze, a Cologne cathedral, a beautiful symphony—how much more do they arouse in the minds of those who are rich in the experience of the feelings, joys, passions and conflicts which these works of art portray.

But a still higher part of man's nature is affected by apperception; *viz.*, that side which pertains to his brotherly relations to every one around him. Sympathetic feeling of joy or sorrow depends upon what we have pondered and lived over in our own hearts. He who has lost a dear friend in death can better sorrow with the sorrowful than one without such experience and that individual to whom a very great and beautiful joy has come can most sympathetically rejoice with those who are happy. One acquainted, by actual contact, with poverty and want, is much

more ready to extend love and charity to a less fortunate brother. Why had Robert of Sicily no comforters? Because none of his companions had a similar experience.

In order to reform the sympathies, more than one short event is required ; for, making an apperceiving concept vivid enough to produce a totally new effect is a matter of slow work. It was so with Robert of Sicily ; he required no less than three years' experience before he apperceived his own condition clearly enough to reform. His new experience, at first, was so far removed from anything he had stored up in his character that there was no correspondence between this external event and his habits of mind. He could not comprehend the heavenly meaning suddenly. The change of his erroneous view and will, the insertion of the new experience into his system of philosophy, into his emotional life, required apperceiving power in the form of a large inner experience—of a severe mental conflict. Why did that wicked king who was compelled to feed on grass with the cattle require such a tremendous experience? Simply because he needed a fundamental reformation of his old habit of thought in order that he might understand his duties. Merely seeing the warning sign was not sufficient ; he had to have a long as well as a pronounced experience.

Sometime ago, Prof. Earl Barnes, in an evening lecture at Chicago University, expressed the following opinion : " It is not always wisdom for an instructor, be he teacher or minister, to present to his pupils the highest ideals he knows, or the entire truth so far as he comprehends it because it would make no appeal to those instructed ; hence, a lower ideal which has in it connecting links with their experience proves of infinitely greater value than the broader truth finding no points of contact in the life already lived." This is Herbart's theory of apperception, as I understand it.

Whenever there is this conflict on the part of the mind in trying to find an inner correspondence to new outward experience an uncomfortable feeling always accompanies the effort ; as when a thoughtful person thoroughly interested in the serious problems of life is present at a fashionable social party. He apperceives with the intellect, perhaps, but not with his sympathies, and, hence, he is ill at ease.

Sometime ago, a little girl was transferred from a school in a

less fortunate district of our city to one in a region better equipped both as to material and moral wealth. She seemed a very nice little girl with none of those attributes which we so much deplore in children of unfortunate homes, but she, also, had about her the atmosphere of a narrow, confined view of life. Exactly one month from date, she asked for a transfer back to her old school. Why? Perhaps, the family had stood the mode of life in the new district, which was foreign to their old form of living, as long as they could. But I have no right to draw a conclusion from a single case. A few days later, in speaking about it to her first teacher, who has had several years' experience in that locality, she said, "We find so much of that; nearly all pupils whom we transfer to other buildings come back to us after a few weeks." I ask myself now, "Is not that sympathetic apperception? Do not our past lives, *i. e.*, our apperceiving experiences tend to make conservatives of us? And does not this explain the cause of that which students of history lament so much, when they say, 'Pshaw! It makes me mad when I consider the little progress which the nineteenth century has made over the old Romans and Greeks!'"

Herbart is by no means the founder of apperception. The Maker of the human soul is its founder. Neither was Herbart the first who recognized this principle; though we may give him the credit of having first put it into definite pedagogical language.

Does not this principle show itself in Swedenborg's "Theory of Hell?" Every wicked person is placed in the life hereafter in conditions similar to his life here. Hereby, Swedenborg desires to prove God's all-inclusive kindness, for he claims that, were a soul placed in a circle too high for his apperceiving power, he would feel much more uncomfortable than if placed where he belongs. It would be no less a burden to be placed too high than too low.

Do we not see the same theory underlying Dante's "Divine Comedy?" No one in the Purgatorio could advance to the higher circles faster than the life within prompted him, even if it did take one of those poor unfortunates five hundred years to make one move.

Theosophy, too, is based on apperception. My next incarnation will be just what I am now preparing myself to enjoy and comprehend and execute. The perceptions appealing to me in

my present incarnation are either advanced or demoted in power and virtue, according to the life in past incarnations. This means that we can not apperceive things which are *entirely new*.

Apperception is not confined to the influence coming from the outer world, upon the old capital. Two old thoughts which have, perhaps, long lain dormant may rise above the threshold of consciousness and so act upon each other as to cause the birth of a new thought which, in its turn, awakens other related ideas and arouses whole thought complexes subjected to an inter-action among one another. This is known as *inner* apperception and is much employed by people of a reflective turn of mind.

Now the vital question with us is : Of what help is apperception to pedagogy ?

First, and foremost, a correct understanding of this principle will create and promote interest in the child for his studies. To quote Herbart's words : " Beware of destroying interest ! But interest will undoubtedly be destroyed when the continuity of the work is interrupted." It will assist in determining a true and helpful course of study ; for with it clearly in mind such subjects and such phases of the branches will be presented, as are within the grasp of the learner. The feeling that the child has a hold on the task before him makes him willing to apply himself to those parts not understood by him ; and so he grasps the unknown. A feeling of pleasure always accompanies the mastery of that which lies beyond one's horizon.

In the actual teaching of the branches, the teacher will present all the stepping-stones needed in teaching a given point. The learning will then proceed with clearness and understanding ; and joy is the result. If the necessary intervening links are omitted, *i. e.*, if the law of apperception is violated, the learner floats about on an unknown sea, all hope disappears and finally indifference follows.

Second. The power of apperception is of the greatest assistance to the individual in helping him preserve a unified stock of knowledge ; for by getting it into an organized, systematized whole he will be relieved of much effort at the hopeless memory of so many thousand isolated facts. The relation or association of facts is sufficient to recall them.

Third. Unity of character as opposed to a distracted personality is a direct effect of skilful apperception. If too many entirely

new and different perceptions are simultaneously or consecutively offered to the mind, which has neither time nor power to find relations for these new impressions in its own consciousness, a looseness in the individuality is a sure consequence. We say the person lacks the power of gathering himself up and wholly throwing himself into a present demand; in other words, he lacks power of concentration. The small child who has had a year or two of constant travel, particularly if this be in foreign lands, will not have nearly so much concentrating power of mind as the one who has remained at home; for he has thousands of beggar perceptions knocking at his mind's door, which have not found a friendly relative within; but the innumerable excitations have nevertheless aroused the mind enough to torment it to find a receptive place for them. Such a child can not be so attentive as one with a narrower but deeper experience.

Fourth. If the theory of apperception holds good, it will be necessary for every teacher to be acquainted with the children's ready stock of ideas; the first grade teacher must be familiar with the home training of her pupils; as this will give her a clue to the points of attachment for her first instruction. Each succeeding teacher must know what has been accomplished in all the previous grades for the same reason; but she must know still more, *i. e.*, what do the succeeding grades demand of pupils—this in order to make her instruction suitable to a bridging over to the next step.

Fifth. Apperception bids teachers of all grades keep informed about the continued progress in home apperceptions made by pupils as well as the progress made in school instruction. These apperceptions should constantly be referred to and so the old and the new will be welded together. Without such continued references, history would be an impossibility. As it is, that part of history which is distant in time and space is so related to the now and the here that it can be understood; for history of all times and places deals with the thoughts and deeds of many. As the pupils, in their very living, are constantly having the thoughts and actions of humanity thrust upon them in the homes, markets, churches, public buildings, entertainments and political campaigns about them, they are enabled to interpret the greater whole or any one of its foreign units in the light of the small concrete unit. It would follow then, that if we wish

to lead the child to the power of forming universal laws, general principles and large thought complexes, we must make constant reference to the concrete surrounding. The fact is, fortunately, that any child that really makes any progress will do this of himself, even if the instructor neglects it, but the progress will be accelerated by the teacher's suggestions.

Sixth. In the light of apperception, the value of teaching thoroughly whatever is presented is at once apparent. If the readiness with which the old ideas come forward decides the ease and rapidity of understanding new percepts, we certainly can not afford to teach anything that is needed in the future, superficially and if it is not helpful in the future life, what is the use of teaching it at all?

Seventh. Since different children, owing to environment and inheritance bring various idea supplies to their work, it is folly to suppose that all children in classes of forty or fifty each instructed in exactly the same subjects can all apperceive the same amount of new knowledge in a given term; hence, it seems unwise for a teacher to attempt to cover all the work laid down in the manual for a specific grade if her pupils have not the ability to take up the work so fast understandingly. On the other hand, if pupils, even if only a few individuals in a class, have such a beautiful preparation of mental stores on hand as to enable them to go faster, is it not wrong to waste their time by keeping them back because the artificial time limit for doing a certain task has not yet been reached?

Eighth. Is it of much value to attempt giving the child a view of the whole in such a short time that it must be done in a smattering way? Can such work really seep in and make for character?

Ninth. The theory under discussion leads to the conclusion that old knowledge should be frequently reviewed not only as a help to new acquirements, but also for the sake of the enlarged view given to it by the new knowledge.

Tenth. To prepare for the fullest life and the power of making broad, accurate conclusions, as opposed to shallow, hasty conclusions, one's education should give one the largest possible fund of well organized, thoroughly systematized apperceiving notions; for, as Lessing in his letters puts it: "Only the skill to rise quickly in every emergency to universal truths makes the great mind, the true hero in virtue, the discoverer in science and art."

PRIMARY DEPARTMENT.

PRIMARY ARITHMETIC—II.

ANNA BROCHHAUSEN, CRITIC TEACHER.—INDIANAPOLIS.

The work thus far has dealt with the vague quantitative ideas; larger, smaller, heavier, lighter. The question now is, how shall the child be led to recognize exact relations? The answer follows: By measuring.

The first lesson will be the finding of equals. "The fundamental idea underlying all mathematics is that of equality." (Herbert Spencer.)

On a kindergarten table, around which the class is gathered, are placed a large number of blocks, varying in size and shape, yet among which the children may find equals. Pint, gill and other measures; ounce and pound weights, etc., should also be on the table. Such objects as fruits, books, etc., are now to be excluded. Only *exact* equals should be placed here.

Still keeping in mind the idea presented in the first paper, that every lesson should engross the whole being, the child is told to step forward and take any two objects which are equal. Delighted with the fact that he may move, handle, act, express, he steps forward eagerly to take the two objects of his choice. He measures, weighs, finds they are equal; and sees in the course of the lesson, that each of his classmates has also an equal. The first step toward the concept, equal, is taken.

It is presumed that the teacher possesses a box of the Speer blocks. In addition to these, it will be found very helpful to have a large number of cubic inch blocks. They will be needed to aid the child in finding the exact relation between two quantities. He has become familiar with the relation, *one* (equality.) He is conscious that there are other relations. The next step in the development of the number idea is to become equally familiar with these other relations.

Have the cubic inch blocks and the blocks from one to twelve, or fifteen on the table. No fixed name is to be given to the cubic inch, but for the sake of analysis it may at times be used as the unit of measure. Having the full attention of the class, show them a block (say a $4 \times 1 \times 1$, or a $3 \times 3 \times 1$) for only an instant.

Let them build. Each block is to be built. At the close of the lesson see if the class can recognize the 2, 3, 4, 5, etc., when the cubic inch is 1. The blocks are brought to one end of the table and arranged on a straight line. Name from left to right, from right to left. Change the order and name again. Let a child step forward, point to the blocks in any order he wishes and call upon a classmate to name them. This will show whether the child has grasped the *relation* 2, 4, $\frac{1}{2}$, $\frac{1}{4}$, etc.

The cubic inch must not always be called one. The *one* of mathematics is not an individual, separated from all else, but the union of two like impressions: "The *relation* of two equal magnitudes."

At the next lesson have all the blocks on the table. Pint and quart, gallon and peck measures; and if possible some glasses or weights which have the relation of one to two, are placed somewhere in the room.

Teacher: (holding up the cubic inch.)—When this is one, which is two?

A child brings two.

T.—Then this block is one, only when held in relation to —?

Child.—That block. (Pointing to the 2X1X1.)

T.—Then the relation of the larger to the smaller is —?

Child.—Two.

T.—The relation of the smaller to the larger —?

Child.—One-half. (If no answer is given:)

T.—Into how many parts can you cut the larger to get one equal to the smaller?

Child.—Into two equal parts.

T.—When you divide anything into two equal parts (or if you fold a piece of paper (doing it) into two equal parts) how much of the whole is in one part?

Child.—One-half of the whole.

T.—Then the relation of the smaller to the larger here is —?

Child.—One-half.

T.—Each of you think of any one block on the table as one. Find the two.

Each in turn steps forward, takes his blocks, steps back to his place holding his blocks behind him.

The teacher shows other blocks having the same relation, each time making the statement: The relation of the smaller

block to the larger is one-half: The relation of the larger to the smaller is two.

T.—Tell me the relation between the blocks which you hold.

The children successively step before the class, hold up the blocks in turn and give the relation. (Aim for freedom in action and expression.)

T.—Let us arrange all the blocks as one and two. The children arrange. The table is left in this order, so that the relation two, one-half may be more deeply impressed.

T.—See if you can find anything else in the room which has the same relation as one to two. A child brings the pint and quart measures. Let him measure water to see if it is the relation two, one-half.

Such questions as: When a pint of cream costs 5 cents what will a quart cost? and as questions 5, 7, 8, 11, etc., P. 77 of Speer's Primary Arithmetic for teachers, can be asked in this connection.

The aim of this lesson is probably obvious. Having noted that the same relation exists between the different magnitudes, the mind is freed from the particular. The *relation* is the object of thought.

The relations one-third, one-fourth, one-fifth, etc., must become equally as clear. A lesson in paper folding has been found very helpful in this connection. The child needs to see one-third, one-fourth, one-twelfth, etc., in relation to the whole. He needs to find out from experience that one-twelfth is smaller than one-half in as many ways as possible. He also needs an introduction to the fractional terms.

Pass four equal sheets of paper to each child. Let him fold one sheet into halves, fourths, eighths. Each time compare the folded sheet with the whole sheet. Similarly, take another sheet—fold into thirds, sixths, twelfths.

In the next lesson have blocks from one to fourteen (or sixteen) and the inch cubes on the table. Each child chooses a block, forms a mental image of it through seeing and feeling, places it out of sight and builds with the cubic inches a block equal to it. Placing the chosen unit beside the building, each passes judgment on his own work. Then each stepping before the class with a cubic inch and the block which he chose, gives the relation of the larger to the smaller and the smaller to the

larger. Having placed the cubic inches as well as the blocks back on the table, the teacher can test how much has been gained in the lesson by holding up various blocks and asking: When this (cu. in.) is one what is the relation of it to this block? (A twelve, or sixteen, or ten being held up.)

If it is thought necessary a special lesson may be given on thirds only, fourths only as in the lesson on the relation of one to two.

Again place the triangular prisms, the square prisms, the cylinders on the table. Call the cylinder, one inch in height, one. Let the children bring two, three, four, five, six. Have the relation of one to each of the others, and the relation of each of the others to one, given. Similarly use a triangular prism, or the two inch cube as *one*. "Restriction to a few things hampers the mind by forms, destroys elasticity, interferes with the free mental imagery."

The cubic inch must not be thought of as one. To prevent this, have the relations one, two, three, four, five, six brought. Call the smaller unit two. Name the others accordingly. Give the relation of two to each of the others.

At this step a little uncertainty in the expression of the youngest class caused me to experiment. I feared they were unable to analyze sufficiently to make a unit of measurement. The experiment was tried in four different classes, two of which were in different rooms.

In each class the relation between different numerical values was asked for. The blocks and the cubic inches were on the table. I said: Show me the relation of four to eight as it is plainest to you. Two-thirds of the class placed four, one-inch cubes beside eight, one-inch cubes. The other third seemed ready to use any block as four and call its double the eight. Even in the oldest class, the majority made the analysis. One child used four, one-inch cubes and placed them beside eight, one-inch cubes. In front of this, he put a one-inch cube beside the square prism $2 \times 1 \times 1$. This showed that the analysis and synthesis were equally plain to him. After each child had finished, he stepped back from the table. Naturally he glanced at the work which the others had done. Then it was, that a large number in this class said: Any way is right, you may use any block you wish as long as you have one twice as large.

This experiment seems, to me, to prove that some children need to have the unit of measure in a tangible form for analysis. So, for their sakes, having the relations one, two, three, four, five, six set up and calling the smallest two, or three, and giving the relation of it to each of the others, I would say: Prove it. It is only necessary for those children who prefer to make the analysis to do this. I admit, that there is the danger of fixing the cubic inch as one after all. But, at present, I believe that unless we give these children the opportunity of making the analysis, the final result will be mechanical memory work. "The recognition of separate or distinct parts always implies an act of analysis, or discrimination definitely performed at some period, and such definite analysis has always been preceded by a vague synthesis." "There is no attention, or too little attention, paid to the essential process of discrimination when it is taken for granted that definite ideas of number will be formed from the hearing and memorizing of numerical tables, or even from the perception of objects apart from the child's own activity in conceiving a whole of parts and relating parts to a definite whole." "The preliminary activity that resolves a whole into parts is omitted, as well as the connecting link that makes a whole of all the parts." (McLellan & Dewey, *Psychology of Number*.) Still we should do with as little as possible of this analysis. The relation, the synthesis, should always be kept in the foreground. "The recognition of three, or four, or five, must be as nearly as possible an intention; a perception of the parts in a whole, or a whole of parts, and not a conscious recognition of each part by itself, and then a conscious uniting it to other parts separately recognized." (McLellan & Dewey, *Psychology of Number*.)

The transition to surfaces and lines will be the subject of the third paper.

CORRELATION—SPIDER'S LEGS.

E. B. G.

It was "Teachers' Meeting" of a large school, whose teachers met every fortnight to discuss the class-work and the individual needs of the pupils, and to make the school a unit instead of merely an aggregation of classes.

The "new teacher" was speaking, answering something said by one of the older ones :

"You cannot make me believe that there is any subject taught in a school which cannot be worked into relation with any other. They are all parts of the same whole, and they must be related if we only knew how to use them together."

"But, Miss Blake," said the older teacher, "you would be very much annoyed if anyone should try to lug geography or nature study into your arithmetic class, now wouldn't you?"

"I don't know—I hope not. I think I might perhaps use the subject so that it would not be an interruption," replied Miss Blake.

"I *know* she would!" exclaimed a pleasant, bright-faced woman who had taught for twenty-five years, but kept up with the times. "I've seen her do it! The other day I went into Miss Blake's class when they were having mental arithmetic, and I never enjoyed a leisure hour spent in visiting a class more than that one. That heavy, dull, half-asleep Nelly Williams raised her hand and asked, 'Miss Blake, how many legs does a spider have?'

"How many legs has a spider? would be better English, Nellie."

"Yes'm, how many legs has a spider, Miss Blake?"

"A spider has eight legs, Nellie, and if in counting them you were so unfortunate as to break off three, how many would he have left? If two other spiders came up how many legs would there be? How many legs on all the spiders? If each lost two legs how many would be left? How many legs would seven uninjured spiders have? If each of the seven lost three legs, how many would they all have left? Take all the legs off four spiders and how many would the seven have?"

And those spiders' legs were added, subtracted, multiplied, and divided for the rest of the twenty minutes, and I am quite sure that no child in the class felt anything like an irrelevant subject or an interruption. It was one of the cleverest things I ever saw done!"—*Primary Education*.

Pine tree and willow tree,
Fringed elm and larch—
Don't you think that May time's
Pleasanter than March? —T. B. Aldrich.

LEND A HAND.

(This department is conducted by Mrs. E. E. Olcott.)

*"Look up and not down,
Look forward and not back,
Look out and not in;
Lend a hand."*

COMPLETING STORIES.

[In order that any who wish to do so may compare their version of the closing chapter of "The Giant Evergreen" with the original, the story is completed.]

THE GIANT EVERGREEN.

"Geraldine Royce wants to buy our evergreen for a Christmas tree," announced Meg.

"She can't have it," was the unanimous reply from the busy group. Only to Alice did Meg tell the price offered.

The wreathing was ready on time and Dick, as the younger Richard was called, delivered it at Rockford from whence, with tons of other Christmas greens, it would be shipped to New York. He came back so silent and troubled that his mother asked: "What is the matter? Didn't Mr. Finch pay you?"

"Oh, yes," he replied, handing her a roll of bills, "Mr. Finch is all right and very kind, too kind, perhaps, if we can't profit by it. Can we manage, by pinching, to save a few dollars?"

"No, indeed!" said his mother decidedly. "We can barely make the ends of the year meet."

"Well," said Dick sadly, "You know, Mr. Finch has always shown an interest in father; to-day he introduced me to a great city doctor who is stopping at Rocktown. He is a specialist in head troubles and asked me a lot of questions about father. He said the trouble might be caused by a splinter of bone pressing on the brain and if it could be removed, he might be as well as ever."

"Oh, if it only could be!" almost screamed Mrs. Grant.

"The usual price," continued Dick, "is hundreds of dollars, but because of our circumstances, he said, if we wished, he would try the operation and only charge what it costs him to bring his assistant and instruments from the city. That would be \$25, but it might as well be \$25,000 if we can't get the money."

Alice looked at her mother's eager, anxious face and then

said, with a curious little catch in her breath, "We must sell the giant evergreen?"

"What," cried her brothers, "sell your 'green friend' that you love so much?"

"Yes, I do love it dearly," she sobbed, "sometimes I have been afraid I loved it more than father, for I am almost afraid of him. But I won't be mean and selfish, so let Geraldine have the dear black spruce for she will give \$25 for it."

So the doctors came with their glittering instruments. After the operation, there was an ominous silence. Then the patient stirred. He opened his lips. "Hold fast there, boys! Steady! Oh, it's falling! Run for your lives!"

His mind had taken up thought just where it had left off ten years before.

The next day, he was permitted to see his children and hear briefly the story of his illness. That night Meg watched by his bedside while her mother slept. Happy as she was, she could not help thinking of the dear guardian tree, and her eyes grew dim as she remembered that to-morrow it must be cut down. Suddenly, her father said, "Aunt Meg's legacy must have come in handy while I have been lying here senseless. Is it all used up yet?"

"No, father," said Meg quietly, "You hid the money, didn't you?"

"To be sure. You must have heard it a thousand times. I buried the bag under the young spruce. It proved a good safe bank, didn't it?"

In the gray dawn, Meg and Dick slipped out with pick-ax and spade and set to work in the frozen ground beneath the spruce. At last Dick waved a piece of the canvas bag triumphantly in the air. The bag was rotted by dampness and time, but the money was safe. Oh, what glad, thankful hearts the cottage held!

It chanced that Geraldine was not disappointed for she had a new plan, one into which the Grants entered heartily. Wealth and a multitude of hands worked wonders. When the shadows fell on Christmas eve, Geraldine brought her city friends wrapped in furs, to the cottage to enjoy the novel surprise of an outdoor Christmas tree.

The royal spruce stood resplendent, decked with gay electric lights which shone in bright crescents and shining, glittering

balls, and half revealed the lovely, appropriate gifts among the boughs. One and all declared Geraldine a "veritable fairy," and Percy freely confessed that he had never seen any Christmas tree that could compare with the giant evergreen.

DESK WORK.

CRAZY-QUILT STORIES.

There is a game in which each player is given a slip of paper upon which a word has been written. The person designated begins the game by weaving the word he holds into a brief story, breaking off abruptly, then the player next him must take up the thread of the story and weave in the word on his slip. Each in turn adds his "patch to the crazy-quilt," that is, his addition to the story. The last player ends the tale which rarely fails to be amusing because of the incongruity. The game has been utilized as desk work in the following way: The teacher gave each child a slip containing a list of words which she had hectographed. The lists were previously folded, beginning at the bottom so that in unfolding only one word at a time need be seen. Each child looked at the first word and expressed some thought in one or more written sentences about it. Then he looked at the next word and continued his story, weaving in the second word, and proceeded thus till the list was exhausted.

The list for one class was Guinea, overshoes, giraffe, April Fool. The resulting stories were very amusing, and were enjoyed by the pupils. The list upon which the following stories were based, permitted a much closer connection and the element of grotesqueness does not appear.

The list was Spain, Fourth of July, warship, and Indiana. Here are some of the stories:

WAR WITH SPAIN.

To commence with I must tell you where *Spain* is located. It is in the southern part of Europe. It is said its men are in war the greater part of their time. United States is now quarreling over the Independence of Cuba. United States has her independence and thinks Cuba should have hers. As you know the Declaration of Independence was written in 1776 on the *Fourth*

of July. United States is quarreling over the explosion of the great *warship* Maine, and for the independence of Cuba. *Indiana* has sent a great warship to the San Francisco harbor, named for the State which sent it to war.

JULIA LONG.

WAR WITH SPAIN OR PEACE WITH CUBA.

Spain, the hot headed country, is wanting to have a fight with some one. Spain has been treating the Cubans very cruelly and the United States is liable to help the Cubans to gain their independence. Our Declaration of Independence was signed *July Fourth*, 1776. It has been 122 years since that time, and we always celebrate that day. Education is given strict attention and we can do as we like. We are building more *warships* and are ready to help the Cubans to gain their independence. Mr. Bailey, of Texas, said the President was forcing the Cubans to buy their independence. Mr. Johnson, of *Indiana*, said the President was not forcing the Cubans to buy their independence. But we would have war if it was necessary.

EMMA FOX.

SOME QUESTIONS IN GEOGRAPHY.

The ten-year-olds whose "crazy-quilt" stories have been given, evidently were interested in war news. The war agitation has furnished a golden opportunity to make the geography an interesting reference book. Patriotic study of the map is a habit which should be inculcated early, encouraged warmly, and continued as long as one is in life's school. Why not turn the blazing interest to account and set the young patriots to studying our coasts, etc.? Suggest that they bring to the teacher names of places or persons they hear mentioned or read of. Write them on the blackboard and let the pupils state briefly what they know of them, and point out the places on their maps.

What can you tell about the following :

- | | |
|---------------------------|---|
| 1. The Dry Tortugas. | 10. Cadiz. |
| 2. Tampa Bay. | 11. Barcelona. |
| 3. Hampton Roads. | 12. What nations own islands in the West Indies? |
| 4. Mare Island Navy Yard. | 13. Why did the United States talk of buying St. Thomas and St. Croix from Denmark? |
| 5. Key West. | |
| 6. Havana. | |
| 7. Porto Rico. | |
| 8. Canary Islands. | |
| 9. Cape de Verd Islands. | |

DROP-LETTER PUZZLES.

I. Playthings that Roy had :

- | | | |
|----------|------------|---------|
| 1. w—i— | 4. t—p | 7. d—u— |
| 2. —o—t— | 5. m—r—l—s | 8. —a— |
| 3. c—r— | 6. —i—e | 9. b—l— |

II. Memory gem he learned at school :

D— your b—s—, y—u— very b—s—,
 —o it e—e—y d—y,
 L—t—l— b—y— and l—t—l— g—r—s
 T—a—'s t—e wisest —a—.

- | | | | |
|----|---------|------------|---------|
| I. | 1. whip | 4. top | 7. drum |
| | 2. goat | 5. marbles | 8. bat |
| | 3. cart | 6. kite | 9. ball |

- II. Do your best, your very best,
 Do it every day,
 Little boys and little girls,
 That's the wisest way.

PROGRAM FOR MEMORIAL DAY.

MAY 30, 1898.

May 30 commemorates a sacrifice for the cause of humanity. It is well to pause in our every-day struggle for material things and rehearse the lesson that was learned more than thirty years ago. Noisy demonstrations are unsuitable for this occasion. The great lesson of the day for the children is reverence for the men who died to make our country free and united, a love for the land of their birth, a loyalty to the flag, and a fear of doing anything that will make them unworthy their birthright.

I. SONG..... Air—America

| | |
|----------------------------------|--------------------------------|
| God bless our rescued land, | Our Father who hath blessed |
| Forever may she stand, | Our land above the rest, |
| Home of the free ! | To thee we bow. |
| May all the blessings taught, | Thou hast been our guide, |
| When war's wild fury brought | Who bade our Union ride |
| Four years with anguish fraught, | Safe o'er deep trouble's tide, |
| Remembered be. | Oh ! bless us now. |

2. RECITATION.....The Best Tribute

My grandfather was a soldier. They tell about the day
 He said his very last good-bye, and bravely marched away
 With flying flags, and bayonets all gleaming in the sun—
 They never saw him marching back when all the war was done.

They brought him here and laid him where I can always bring
 The very brightest flowers that blossom in the spring.
 But sweeter far than flowers, as every one will tell,
 Is the memory of soldiers who loved their country well.

I wish I could be like him—to try with all my might,
 And do my loyal service for honor and for right,
 And victory and glory! But children now, you know,
 Have never any chance at all to war against a foe.

And as I think upon it, the best that we can do
 To show our love and honor for a hero brave and true,
 Is to resolve together, here, standing by his grave,
 To live our very noblest in the land he died to save.

—*Sydney Dayre, in Youth's Companion.*

3. READING.....The Gray and the Blue

On the battlefield at Richmond, Ky., in 1862, a Confederate and Federal soldier were lying some distance apart. Both were prostrate from severe wounds. "I am dying for water," the boy in blue cried out in despair.

"I have water in my canteen to which you are welcome," said the one in gray.

"I couldn't move to save my life," groaned the wounded Federal. The Confederate lifted his head, and looking over to his wounded foeman, called out in compassion, "Hold on a little longer, Yank, and I'll come to you!"

By digging his hands into the ground the heroic southerner dragged himself to the side of the Federal, groaning every time he moved. After the sufferer had drunk eagerly, the two clasped hands in token of buried hatred. The Confederate had over-exerted himself and brought on a hemorrhage, from which he died in a short time. The boy in blue kissed again and again the cold hand that had brought him relief, when he was taken away to the hospital, where he died next day.

4. An instructive and entertaining exercise can be given by members of the history class. Each pupil having assigned to him the character of some noted general, gives in a brief talk a personal reminiscence of that general's actions in the great war. This reminiscence is given in the first person.

5. RECITATION.....The Man with the Medal

Here he comes! Doff your hat till the hero goes by;
 No, don't stop to listen for trumpets and drums.
 No banners are waving, obscuring the sky,
 All speaking to us of the hero that comes.

'Tis only this workman, grizzled and grim,
 On his way to the place where he toils for his bread;
 You don't care to stand here bareheaded for him,
 Unless you are told what he's done, what he's said?

And what may his name be? Why, how can I tell?
 I've asked him no questions; sufficient for me
 Is the little bronze medal pinned on his lapel,
 That all whom he meets, having eyes, they may see
 And know that his soul has been touched by the power
 That blots out all selfishness, cancels all fear;
 It speaks to the world of a perilous hour
 That called for a man; and this one answered "*Here!*"
 Do you fancy he waited to spell out his name?
 Or to wonder what sort of a medal he'd wear?
 Or to think how he'd look in the temple of fame?
 Or who of his neighbors would gaze on him there?
 Not an instant. He looks like the rest of his clan;
 His hands are as rough, and his clothes are the same;
 But, he's filled the full measure of greatness of man;
 And, from that hour to this, he has worn a new name.
 And that name is *Hero*; I care not to see
 Where he lives, nor to hear what his neighbors might tell;
 Nor the name that they call him; sufficient for me
 Is that little bronzed medal pinned on his lapel.

—Margaret Holmes Bales.

6. ESSAY Our Dead Heroes
 7. SONG Onward, Christian Soldiers
 8. READING What the Nation Needs

"What we need above everything else, is not the kind of courage which the noble fellows who went to the front in 1861 showed, so much as the lonely kind of valor which makes and keeps a nation pure. The young men of '61, of whom Robert Shaw may serve as a splendid type, were as gallant a group as were ever produced in any society; their courage was of that noble kind which faces death without counting the cost, because one's country is at stake. That kind of courage the country has never lacked and never will lack. But there is another kind of courage of which this country stands in great need. It does not need men to die for it; such men will always stand ready if the occasion arises. It asks a much more difficult sacrifice; it demands men who will live for it. What we need to-day is not a million brave young fellows ready to go to the front, but the same million, who are willing to give time, strength, and thought day by day, year by year, to the public life of a nation."—*Speech of Prof. James at the unveiling of the Shaw monument.*

QUOTATIONS:—

[NOTE.—Let each child come forward when he recites, bringing a flower or bunch of flowers. Later, the whole can be carried and placed on the soldiers' graves in the nearest cemetery. In many places, it is customary to collect the flowers brought to the schools as the chief decoration.]

9. Dead, with their eyes to the foe,
 Dead, with the foe at their feet;
Under the sky laid low—
 Truly their slumber is sweet—
Though the wind from the camp of the slain men blow,
 And the rain on the wilderness beat.
10. Dead, for they chose to die
 When that wild race was run;
Dead, for they would not fly,
 Deeming their work undone;
Nor cared to look on the face of the sky,
 Nor loved the light of the sun.
11. Honor we give them, and tears;
 And the flag they died to save,
Rent from the raid of the spears,
 Wet from the war and the wave,
Shall waft men's thoughts through the dust of the years
 Back to their lonely grave. —*Andrew Lang*.
12. Think of the fond years he gave of his manhood;
 Think of the hopes that were dead when he fell;
Think how he died, while he longed for some loved one;
 Think of the anguish his lips could not tell.
13. With malice toward none, with charity for all, with firmness in the
right, as God gives us to see the right.—*Abraham Lincoln*.
14. And South or North, wherever hearts of prayer
 Their woes and weakness to our Father bear,
Wherever fruits of Christian love are found
 In holy lives, to me is holy ground.—*Whittier*.
15. We'll bring the lovely flowers of Spring
 That in the fields and gardens grow,
And on the soldiers' graves to-day
 Our garlands we will gladly lay,
Our loving thoughts of them to show.
16. Here rest the great and good. Here they repose
After their generous toil. A sacred band,
They take their steps together, while the year
Comes with its early flowers to deck their graves,
And gathers them again as Winter frowns.
17. Here let us meet, and while our motionless lips
 Give not a sound, and all around is mute
In the deep Sabbath of a heart too full
 For words or tears—here let us strew the sod
With the first flowers of Spring, and make to them
 An offering of the plenty Nature gives.

18. Yes, scatter flowers above the graves
 Where the nation's dead are sleeping,
To tell that the comrades left behind
 Their memories green are keeping.
 'Tis many a year since they marched forth,
 All the battle's perils braving,
And many a year above their graves
 Has the long green grass been waving.
19. No more shall the war cry sever,
 Or the winding river be red ;
To hush our anger forever
 Will rise the thoughts of our dead.
Under the sod and the dew,
 Waiting the judgment day.
Love and tears for the Blue,
 Tears and love for the Gray !—*Finch*.

20. SONG.....Tenting on the Old Camp Ground

[For additional material for program, see May JOURNALS of previous years.]

EDITORIAL.

"THOU canst not see grass grow, how sharp so'er thou be,
Yet that the grass has grown thou very soon canst see ;
So, though thou canst not see thy work now prospering, know
The print of every work time, without fail, will show."

RECOLLECT that trifles make perfection, but that perfection is no trifle.
—*Michael Angelo*.

ONE "do" is worth a thousand "don'ts" in the destruction of evil or
in the production of good.—*Hughes*.

IF ANY man seek for greatness, let him forget greatness and ask for
truth and he will find both.—*Horace Mann*.

IN GERMANY one man in 213 goes to college ; in Scotland one in 520 ;
in the United States, one in 2,000 ; and in England, one in 5,000.

CONTROL by external agencies should last for the shortest possible time.
Self-direction should be our aim for our pupils from the first.—*Hughes*.

TEACHERS should keep in mind the National Association to be held in
Washington, D. C., July 7-12. It will afford an excellent opportunity to
visit the national capital and the east. W. R. Snyder, of Muncie, is the
State manager and will answer all questions.

MICHIGAN has a law which compels the school authorities to cause the flag to be displayed from every school building during school hours. This is consummate nonsense. Such a constant display *cheapens* the flag and takes all the inspiration out of it. Patriotism is not inculcated in this way.

MISS ANNA BROCHHAUSEN, whose second article appears on another page, is a critic teacher, in the Indianapolis schools and is one of the best. She has had thorough training and successfully practices what she preaches. She spent more than a year studying in Jena and Berlin, Germany. Her article can be read with profit.

ESPECIAL attention is called to the article on "Apperception" found on another page. The author, Miss Lydia Blaich, spent a year in Jena, where "apperception" was born, and she has certainly made a comprehensive and excellent presentation of it. Her illustrations make it clear. The article should be carefully read.

THE trustees of Mount Holyoke College have decided to grant the degree A. B. to scientific and literary students, the same as to the classical, who have completed a full course of studies. Good. The degree A. B. should stand for a given amount of culture—whether that culture comes from the study of classics, science or literature.

SUPT. A. B. BLODGETT, of Syracuse, New York, gives the following very wholesome advice to teachers: "Be something. If you are a Baptist, be a Baptist; if a Catholic, be a Catholic; if a Unitarian, be a Unitarian; if nothing, be nothing. Don't try to belong to all the denominations at the same time. Be consistent but not bigoted."

DR. SHELDON, who was for many years president of the famous Oswego Normal School, and who has sometimes been called "the grand old man of the schools," once expressed himself thus in reference to a teacher's qualifications: "If I were to express my estimate of the proper qualifications of a teacher on a scale of ten, I would say five the man, three the teacher, two the scholar." Is his estimate correct?

THE NEW ENGLAND JOURNAL OF EDUCATION in its March issue has an editorial entitled, "The Cleveland Failure," in which the writer criticises the Cleveland plan of school organization, and charges that "politics" exercise a pernicious influence on the schools. This has for some years past been regarded as the ideal school system of the country, and of course Mr. Winship's announcement attracted attention. But Superintendent L. H. Jones replies to the editor of the JOURNAL and denies the allegation. He says that it is true that the "Director" who nominates the Superintendent and manages all the material interests of the schools is elected by the people once in two years, and that this is done through political

machinery, yet the strife over this office does not in any way interfere with the selection of teachers or the inside working of the schools. The fact that the Director first elected under the new law, was recently elected for a fourth term, and by an increased *majority*, seems to be substantial proof that the Cleveland people themselves endorse the new system and that it is not a "failure."

TO PROTECT THE BIRDS.

The Indiana Academy of Science has called a State meeting of those interested in preserving our native birds which are so rapidly disappearing. The meeting will have been held when this reaches the JOURNAL, readers, and next month's issue will contain a report of the same. In the mean time befriend the birds.

"THE TEACHERS' CLUB."

On another page will be found the announcement of the Homestead Edition of the complete works of James Whitcomb Riley. Mr. Riley has revised and re-arranged all his writings, taken out duplicate poems and supplied new ones, has re-classified and put the whole into ten beautiful volumes. Every teacher ought to read Riley; it will make him a better teacher—not because it will give him more pedagogy but because it will bring him into closer touch with the spirit of the child. Riley is not a substitute for any preparation the teacher needs to make, but an inspiration added to all other qualifications. Read the announcement.

ONE CENTRAL SCHOOL FAVORED.

The practicability of Superintendent Geeting's plan to unify the district schools of the State has had a demonstration this spring in Montgomery county. In Coal Creek township, a school, several miles from Wingate, was found to have but a small membership, and the trustee decided that it would hardly pay to employ a teacher for so few. He accordingly decided to give Mr. Geeting's plan a trial. He therefore employed a man to collect the children each day in a comfortable hack and carry them to Wingate. The man gave bond for his good behavior and the performance of his duty in an acceptable manner. The weather during the experiment was unusually bad, the floods occurring during the period, besides several ugly freezes. In spite of all difficulties, however, the hack was late but one morning, and then only a few minutes. None of the pupils were exposed as much as if they had attended the district school in their own neighborhood, and had much better instruction than they could possibly have received there. The trustee reports that the expense was only about half what the maintenance of the district school would have been.

THE NORTHERN AND SOUTHERN ASSOCIATIONS.

On another page will be found short reports of the two great educational meetings—the two greatest ever held in this country outside the National Association.

Superintendent W. H. Wiley, chairman of the executive committee of the Southern Association reports the enrollment of his association as 2,357. Superintendent H. G. Woody, chairman of the executive committee of the Northern Association reports that his association enrolled 2,205. These were immense meetings—in fact too large. When a meeting becomes so large that it cannot be comfortably seated and hear all that is said, it is too large. There is danger that the rivalry between these two associations may be carried too far. Already it is true that there are but few places within the boundaries of each association that have sufficient capacity to entertain it. While the Terre Haute meeting enrolled the larger number, the real attendance from the outside at Kokomo was greater. The Terre Haute meeting was unfortunate in coming the week that the rains and floods washed out so many railroads. On this account hundreds of teachers were prevented from attending, notwithstanding the fact that they had enrolled and paid their annual fees.

STATE TEACHERS' ASSOCIATION.

THE Executive Committee which has in hand the preparation of the program for the next State Teachers' Association, is contemplating a change from the plan followed for some years past. A great many have the feeling that the cutting up of the Association into many sections has a tendency to divide the interest and kill enthusiasm. There is a feeling that the State Association should be the one meeting of the year where teachers can meet and discuss the larger problems of education that are of general interest to all and that the meetings should all be "general sessions." The JOURNAL heartily agrees with this thought. Possibly one-half day might be given up to section meetings, but let the other sessions all be mass meetings. If the subjects considered pertain to the higher phases of school work the primary teacher certainly needs to know it and should be interested in it. If the subject should be purely primary in its nature, every teacher from the superintendent down needs to hear and to understand it. The teacher of the advanced grades cannot do the best work unless he understands what has preceded. Most of his work is necessarily founded on what has gone before. The teacher in the primary grades can only do the best possible work when he knows what is to come after, and sees what his work is to lead to. The specialist needs to be saved from himself. The teacher whose work is confined to a single subject is in great danger of growing narrow. If he would fit his work into the general curriculum and adapt his work to that done by his associates he must occasionally take a peep into other fields. The State Association should have for its chief purpose the broadening of educational thought.

SPECIAL OFFER.

At this season of the year the JOURNAL usually makes a special offer to secure new subscriptions as well as to induce teachers to renew. Any one who will renew his own subscription or secure a new one, and send \$1.25,

will receive as a premium either of the following most desirable books, the regular price of each being 75 cents. Two names and \$2.50 will secure both books. This is a golden opportunity to secure without money, and almost without price, two books that should be in every teacher's library. The books are as follows :

1. "THE FIRST SCHOOL YEAR"—Every primary teacher should have a copy of Miss Beebe's charming and suggestive book. The author is a very successful kindergarten supervisor in Evanston, Ill., and in her book has given teachers of little children invaluable help on these most practical subjects:—Plays, Games and Songs; Gifts, Occupations and Materials; Science Work; Festivals and Holidays; Color, Form and Number; Trades, Industries, Art, Artisanishp; Self-Expression in the School Room; Literature for School Children; Concentration in Plans of Work; Growth in School Life; What the Kindergarten does for the Children.

2. "HEGEL'S EDUCATIONAL IDEAS"—Dr. Bryant is well-known as a writer on philosophical subjects. He is instructor in psychology and ethics in the St. Louis Normal and High School, and the author of several well-known works of great value. In this book he treats, in a profound and practical manner, the following subjects, among others :—"From the Simple to the Complex;" "The Ages of Man;" "General Notion of Education;" Instruction: Its Character, Its Process, Its Means, Its Method; Discipline; Refinement, etc.

BOOK EVALUATIONS.

CONDUCTED BY CHARITY DYE.

(Communications addressed to 1122 Broadway, Indianapolis.)

EVALUATION CARDS.

An explanation of some points upon the evaluation card is given below by request. Since every point on the card is intended to give definite information to aid in the selection of books for the young, persons sending in cards are requested to fill the blanks after each point thereon. The terms, *author*, *title*, *suitable for*, and *illustrations*, are self-explanatory. *Imprint* calls for publisher and date of publication. *Subject* is meant to tell two things when the subject and *title* do not coincide, as they often do not. Under subject can be told whether the work is biography, travel, history, fiction, essay, etc., and, also, the particular thing of which the book treats. For example, "Pembroke" under subject would be spoken of as realistic fiction; early New England life.

Information goes more into detail than subject; it is more specific. *Information*, under "Pembroke," would refer to the narrowness of early New England life and that the subject of a diseased will is set forth. Under biography, *information* would give some notion of what was brought out by the story of the life mentioned. Under travel, *information* would note the historic, literary and artistic associations of the places visited. To make a card valuable this point should be carefully thought out.

Language. This is one of the most important points upon an evaluation card. It includes diction and may include style. The words put into a youth's thought and upon his lips by a book can not be overlooked. These words are furnishing him with a means of expression—they color his thought and give it tone; they are making associations for him. It is through diction that one comes to a sense of truthfulness, *i. e.*, to a sense of the correspondence between an idea and its expression; the thing he *says* must be the thing that *is*. The language of a book may be indicated upon the cards by fitting epithets. It may be admirably adapted to youthful understanding, beautiful, chaste, choice, colloquial, difficult for young readers, dramatic (which also applies to style); it may be energetic, easily understood, forcible, full of tone-color, graceful, good Saxon, poetic, pleasing, plain, picturesque, quaint, refined, simple, strong English, technical, vivid, vigorous, well chosen. The language may or may not belong to the period, or place set forth, *i. e.*, it may be seventeenth-century English—the English of Shakespeare—it may abound in biblical terms or in Homeric phrases; it may be a special dialect, or a translation which preserves characteristics of the original. These epithets may also apply to style.

Moral tendency has to do with the special lines along which the moral nature is re-enforced—while no book, with an immoral tendency, would be evaluated, except for warning, there are books about which very capable people differ concerning the point of morals. There is no point so subtle as this. Much of what was once considered good Sunday School literature is now condemned by the most serious minded as hurtful in its effects because it is untrue to the highest morals in its outcome and hence, in its teaching. The good were always rewarded in a visible way and the bad were punished in the book. Truth demands a different state of things if books are to portray life. Then the subtle influence of a book makes its moral tendency difficult to state. The harmful in a book sometimes lurks behind the apparently helpful. Then, too, standards change. Why is it that Bunyan's "Pilgrim's Progress" no longer feeds the growing minds of this generation? Hundreds of pupils have borne testimony that they did not enjoy it. One pupil said that Christian was a coward—always running away. "Why didn't he turn about and face Apollyon and fight it out with him?" This shows the change in temper—the desire to substitute fact for allegory. The point in this illustration is, that what re-enforced the moral tone of one generation is oftentimes supplanted by something different in a succeeding one.

The *moral tendency* may be noted on the card as unquestionably good, stimulating to heroism, educative in fine moral distinctions. holds up the right in a true light, questionable, might attract to the wrong under seeming right, encourages persistence under difficulties, gives a higher standard of right, emphasizes integrity to highest self, furnishes moral nutrition, wholesome, corrective towards true growth.

Comment gives a place for added information for which there was not room elsewhere; for special impressions of the reader or evaluator; for any specific information for which the book is noted—for mention of items of interest, such as persons, places and events.

Reader. The name of the reader should appear as an act of good faith. No one would fail to sign his name to a bank note; surely this evaluation card is as serious as any banking business could possibly be.

It is hoped that these explanatory remarks will encourage teachers *everywhere* to take hold of this evaluation work. It can be made co-operative with every teacher who reads the JOURNAL. There ought to be an evaluation catalogue started in every school in Indiana. This department will gladly answer through these columns any requests for cards already in the evaluation department of the Indianapolis library. The librarian has kindly given access to the cards already filled and intends having them in a case, soon.

EVALUATIONS.

[The history work is cut short by the large space given to explaining the evaluation cards.]

Author, *John Fiske.* Imprint, *Houghton & Mifflin, '91.*
 Title, *The War of Independence.*
 Suitable for boy? *Yes.* Girl? *+*. Age, *10—, 16+.* Grade, *4, 5, 6.*
 Subject, *History of the Struggles for American Liberty.*
 Locality, *Thirteen Original American Colonies.* Period, *1750-1789.*
 Information, *The Relations of the U. S. to France and England and the Crises in the Revolutionary Struggle.*
 Language, *Simple, Choice.* Style, *Lucid.* Illustrations, *None.*
 Moral Tendency, *Teaches respect for country. Shows cause and effect.*
 Comment, *The author calls this a sketch, but it is an epoch making book for school purposes. It answers questions involved in the war.*
 Date, *April 16, '98.* Reader, *Arela Thayer.*

Author, N. S. Dodge. Lee and Shephard. Title, Stories of American History. Suitable for boys and girls from 9 to 14 in Grades, 4, 5, 6. Subject, Principally Revolutionary struggles. Locality, Eastern states. Period, 1492-1781. Information, Concerning the events and people that achieved independence. Language, Adapted to young readers. Moral tendency, Teaches patriotism and enlarges the sympathy. Illustrations, Good. Comment, Facts are attractively and vividly told. Cultivates love for history. Selection of events, happy. April 1, '98. Reader, Ray Deitch.

TOOLS FOR TEACHERS OF HISTORY.

Adams, C. K. *Manual of Historical Literature.* Harper's, 1888.

[A guide to the value of the histories of all nations. One gets in this book the comparative merits of different historians and their views.]

Channing and Hart. *Guide to American History.*

[An indispensable reference book for teachers. It is a complete compendium on the subject. It is worth any number of lectures. In it are found sections devoted to

methods and materials; a complete bibliography of American history; a section on working libraries; class exercises; topics for discussion and a setting forth of the particular epochs in American history.]

Channing and Hart. *American Leaflets*. Lowell & Co.

[They contain documents from original sources of the various movements and measures in United States history, from the earliest times to the present. The "historic view" can not be given to the students without access to historic documents, such as these leaflets provide.]

Gordy and Twitchell. *Pathfinder in American History*. Lee and Shephard, 1893.

[Specific information. Work classified by grades and for occasions. It should be in every school library.]

American History for Young Folks.

[Leaflet issued by Buffalo Public Library is especially fine in its suggestions upon history.]

The San Francisco Library Bulletin for October, 1896, has valuable history lists.

Sargent's *Reading for the Young*.

[Supplement 1891-1895 should be on every teacher's desk. Its evaluations on history are accompanied with a general survey of reading.]

Frederick Harrison in his book, *The Meaning of History*, gives the best advice and instruction on the subject.

QUESTIONS AND ANSWERS.

STATE BOARD QUESTIONS USED IN MARCH.

GRAMMAR.

1. How does language work differ from technical grammar?

Language work aims to improve the written and spoken language of the pupil. It treats of grammar as an art. Technical grammar treats of inflection, classification, and function of words, and of the laws relating to the structure of the sentence. It treats of grammar as a science.

2. What is a modifier? Name five kinds and illustrate.

A modifier is a word which limits or qualifies the meaning of some part of the sentence. Five kinds are; (a) adjective, as "The *merry* birds are here;" (b) adverbial, as, "The brook runs *swiftly*;" (c) objective, as, "He wrote several *letters*;" (d) possessive, as, "The *child's* slate is broken;" (e) appositive, as, "Webster, the *statesman*, was renowned."

Note. (d) and (e) are sometimes classed as adjective modifiers; (c) is a direct objective; an indirect objective would be, "He brought *him* an orange."

3. What determines the case-form of the compound relative pronoun? Write three sentences, each containing a different case-form of the compound relative pronoun "whoever." Explain the use of each in the sentence.

The form of a pronoun whose case forms vary is determined by its use. A relative pronoun belongs to a subordinate clause. The compound relative *whoever* seldom occurs in any other case except the nominative. Illustrations of its use in other cases are ; (a) He will appoint *whomever* you suggest ; (b) *Whosever* farm this is should be properly tended. In Brown's grammar, the declension of *whoever* is given in full. Maxwell in his grammar, says it is not declined, that "of all the compound relatives, only *who-soever* is declined." The possessive form *whosever* is not found in either the International or the Standard. The objective form *whomever* is not found in the International ; the Standard gives it, but gives no illustration of its use.

4. *How is the property of number indicated in the noun? Give examples.*

The property of number is generally indicated in nouns by a difference in the form, or spelling. (For the various rules, see text-book).

5. *There is a better and a nobler way. Give the use of "there," "better," "nobler," and way.*

"There" is an expletive used to introduce the sentence and let the verb precede the subject ; "better" and "nobler" are adjective modifiers of "way ;" "way" is the simple subject ; the predicate is the verb "is."

6. *Write a sentence containing a direct quotation and give rule for its punctuation.*

Captain Lawrence said, "Don't give up the ship." A direct quotation should be inclosed by quotation marks, and separated from the rest of the sentence by a comma. Words which interrupt a quotation should be inclosed by commas ; as, "One to-day," says Franklin, "is worth two to-morrows."

7. *What is meant by the laboratory method in teaching grammar? Illustrate.*

The laboratory method is that by which we develop the science from particular examples. Inductively, the student is led to discover laws, rules, and principles for himself. *Illustration.* In the reading matter, for example, in the third or fourth reader, let forty (or more) plurals be collected and examined until certain similarities and differences noted shall lead to the discovery of certain principles by which we can be safely guided in the formation of the plural of other words.

UNITED STATES HISTORY.

1. *Write within about 200 words your estimate of the character of Benjamin Franklin. Cite the sources of your information.*

In many ways Franklin was the most remarkable man who came to maturity while these United States were yet British colonies ; and nothing, perhaps, was more remarkable about him than the fact that he was never colonial in his attitude. He stood before kings with no uneasy self-consciousness or self destruction ; and he faced a committee of the House of Commons with the calm strength of one thrice armed in a just cause.

Humor, indeed, he had so abundantly that it was almost a failing. Like Abraham Lincoln another typical American, he never shrank from a jest.

One of his chief characteristics was curiosity—in the wholesome meaning of that much abused word. He never rested till he knew the why and and the wherefore of all that aroused his attention. As the range of his interests was extraordinarily wide, the range of his information came to be very extended also. He was thorough, too; he had no tolerance for superficiality.

There is a series of publications containing the lives of American men of letters, and another containing the lives of American statesmen. In each of these is a volume devoted to Benjamin Franklin; and if there were also a series of American scientific men, the story of Franklin's life would need to be told anew for that also. No other American could make good his claim to be included even in two of these three collections.—(*Brander Matthews.*)

2. *What have been the moral, social, and economic effects of the extension and cheapening of the telephone service?*

The chief social effect is similar to that which was seen on a larger scale in the extension of railroads—a bringing together of persons and of communities into unions of interests and sympathies, resulting in an extension and strengthening of social ties; an economic effect is the saving, for other purposes, of the time, money and strength formerly spent in repeatedly bringing about desired communications now permanently established by the telephone. The moral effects are not so clearly seen, but they exist, and are constantly arising in a greater or less degree, from the social effects, through tendencies that are the natural outgrowths of common interests and sympathies.

3. *What were the leading causes of the French and Indian war?*

The chief cause was the conflicting territorial claims of the two nations; a second cause existed in their long-standing national animosity; the immediate cause was a conflict between the frontiersmen of the two nations in attempting to colonize the Ohio Valley.

ARTITHMETIC.

1. *Define what is meant by the product of two numbers. Multiply 3905 by 901 and explain each step of the process as you would to a class commencing the study of multiplication.*

The product of two numbers is the result obtained by taking one of them as many times as there are units in the other.

The problem given is suitable for third grade pupils who have been taught to multiply by single numbers. The only new point to be taught is the position of the partial products. (See any good text-book for explanation.)

2. *Give such explanation as you would use to make a class thoroughly appreciate the concept, "decimal fraction."*

The pupil may be told that a decimal fraction is one whose denominator is 10, 100, 1000, or some similar number. Having studied common fractions this statement will be perfectly intelligible to him.

The decimal method of writing these fractions may then be given as follows,—Write down the numerator of the fraction, prefix ciphers until the number of places is equal to the number of ciphers in the denominator of the fraction and put a point before the whole. The pupil may then be told that the decimal form is the exact equivalent of the fractional form, and is read in precisely the same manner.

3. *What is a prime number; a composite number? Find the nearest prime to 591.*

A prime number is one which is not exactly divisible by any other number except itself and unity.

A composite number is one which is exactly divisible by some number other than itself or unity.

593 is nearest prime to 591.

4. *How do the quantities $\left(\frac{31 + \frac{1}{2}}{37 + \frac{1}{2}}, \frac{31 - \frac{1}{2}}{37 - \frac{1}{2}}, \frac{31 \times \frac{1}{2}}{37 \times \frac{1}{2}}, \frac{31 \div \frac{1}{2}}{37 \div \frac{1}{2}}, \frac{31 \times 0}{37} \right)$ compare in value with $\frac{3}{4}$?*

The first fraction is greater than $\frac{3}{4}$, the second less than $\frac{3}{4}$, the third and fourth equal to $\frac{3}{4}$, and the fifth infinitely small when compared with $\frac{3}{4}$. Adding the same positive quantity to both terms of a fraction increases the value of the fraction. Adding the same negative quantity to both terms of a fraction decreases the value of the fraction. Multiplying or dividing both terms of a fraction by the same quantity does not change the value of the fraction. Any fraction whose numerator is zero is equivalent to zero; and zero is infinitely small when compared with any finite quantity.

5. *The volume of a cube is 512,000 cubic inches; find its entire surface and the total length of its edges.*

$\sqrt[3]{512000} = 80$; $80 \times 80 \times 6 = 38400$, number of square inches in the whole surface; $80 \times 12 = 960$, number of inches in the whole length of its edges.

6. *A pile of wood 129 feet long, 4 feet wide, and 6 feet 8 inches high, is sold for \$6.50 per cord. How much money is received for it?*

$129 \times 4 \times 6\frac{2}{3} = 3440$, number of cubic feet; $3440 \div 128 = 26\frac{5}{8}$, number of cords; $26\frac{5}{8}$ cords at \$6.50 per cord amounts to \$174.68 $\frac{5}{8}$.

7. *Divide 20 weeks, 6 days, 23 hours, 39 minutes, 13 seconds into 164 equal parts.*

Each of the equal parts will be 21 hours 30 minutes 36 $\frac{13}{164}$ seconds.

8. *A tap discharging 4 gallons per minute empties a cistern in three hours. How long will it take a tap discharging 9 gallons per minute to empty it?*

If a tap discharging 4 gallons per minute empties a cistern in 3 hours; then 1 gallon per minute will empty it in 12 hours; and 9 gallons per minute will empty it in 1 $\frac{1}{3}$ hours.

9. *An agent buys 3100 barrels of flour at \$4.75 a barrel, and charges 1 $\frac{1}{2}$ per cent commission. What is the amount of the bill, including the commission?*

$\$4.75 \times 3100 \times .01\frac{1}{2} = \220.875 ; $\$14725 + \$220.875 = \$14945.875$.

10. *Discuss the arithmetic work of the first four years, as outlined in the State Manual. (If you are teaching in a graded school, discuss the work of your grade.)*

See State Manual.

SCIENTIFIC TEMPERANCE.

1. *What is the testimony of Arctic explorers as to the value of alcohol as a drink in cold latitudes?*

Alcoholics are depressants; and whatever tends to lower vitality, or the vital activities of the system, will depress its heat generating power; hence, to be able to resist the influence of cold, alcohol should be avoided. The testimony of all Arctic explorers is against the use of alcohol as a drink in cold latitudes.

2. *State several ways in which the presence of alcohol in liquids can be detected.*

By the odor or taste of the liquid; and by distilling the liquid.

3. *Can alcohol be regarded as "anti-fat?"*

It can not. It hinders the oxidation of carbonaceous matter and causes an accumulation of unhealthful fatty matter in the tissues.

4. *Why is one who has taken an overdose of an opiate forced to take long-continued exercise.*

In order to counteract the narcotic effects of the drug, and by vigorous functional activity to work it out of the system.

5. *How does a narcotic differ from a stimulant? Give example of each.*

"Stimulants are those agents which increase or intensify the forces of the system. Narcotics are those agents which paralyze or depress the forces of the system. These opposite effects are produced by the same agents modified by the quantity, the age, the sex, the temperament, and the condition of health, the general law being that small quantities stimulate and large quantities depress, other things being equal, and that large quantities at first stimulate then depress. Large and small are relative terms, and what would be a large quantity for one person may be a small quantity for another. All stimulants, then, are narcotics when pushed to an extreme in quantity or continued in time. All narcotics are stimulants in small quantities and when first taken."

6. *What effect has alcohol upon the corpuscles of the blood?*

Alcohol stimulates the blood discs to an increased and unnatural contraction, which hurries them to the last stage of development—that is, induces their premature decay and death. The coloring matter is dissolved out of them and the pale discs lose their vitality, whence less oxygen can be absorbed, and less carbon carried out. It extracts water from them, thereby causing them to become shriveled, a condition which is very detrimental to the proper and healthful discharge of their functions.

7. *How is a cigarette constructed, and why is the smoking of it more injurious than the smoking of a cigar?*

A cigarette is constructed of paper and finely divided tobacco.

Because of the large quantity of smoke taken into the lungs, and with it that hurtful element, carbonic oxide; also, on account of the adulteration of the tobacco.

GEOGRAPHY.

1. *Where and what is the Grand Canon of the Colorado? What is its origin?*

The Grand Canon of the Colorado is an immense rocky gorge in Arizona through which the Colorado river flows. It has been formed by corrosion by the water of the stream. It is nearly 300 miles in length and forms one of the most wonderful natural objects in North America. It opens all the series of geological strata down to their granite foundation. The walls are nearly vertical and from 3,000 to 6,000 feet in height.

2. *Where is maize or Indian corn cultivated? How does the corn belt compare in area with the wheat belt?*

Corn can be grown in the tropics from the level of the sea to a height equal to that of the Pyrenees; it is grown in the south and middle of Europe, but it cannot be grown in England with profit. Frost kills the plant in all its stages, and the crop does not flourish well if the nights are cool, no matter how favorable the other conditions, and comparatively little is grown west of the great plains of North America. The corn belt of the world is the Mississippi basin. It is grown but little in other countries.

Wheat is not produced with profit in the southern part of the United States, but it is grown in great abundance in many other parts of the world.

3. *State reasons why a great city was necessary at the site of Chicago?*

Chicago is at the head of the navigation of the Great Lakes. It is near the center of the great wheat and corn producing area of the central states, and of large supplies of fuel, iron, and lumber. It lies directly in the route of travel between the northwestern section of the country and the eastern. It began as a trading post and a frontier garrison, and lay in the line of travel from Canada to the Mississippi.

4. *In teaching the geography of Spain, what history would you link with Granada? What literature?*

The history of the Moors in Spain, and Irving's "Chronicle of the Conquest of Granada."

5. *What is the prevailing language of South America? What important exception? Explain the exception.*

Spanish is the prevailing language of South America except in the Guianas, which are colonial possessions of France, England and Holland, and in Brazil which was formerly a possession of Portugal and retains the Portuguese language.

6. *Why is the western coast of Norway free from ice at the time that the coast of Sweden is blocked by ice?*

The Gulf Stream tempers the climate of the western coast of Norway. On account of the number of rivers flowing into the Baltic Sea, it is less salty than the ocean, and therefore freezes more easily.

7. *Discuss the geography work of the first four years as outlined in the State Manual. (If you are teaching in a graded school, discuss the work of your grade.)*

See State Manual.

THE LANGUAGE ARTS.

1. *What is composition?*

"In the broadest sense composition is the expression of thought by means of language." (See page 113.)

2. *What is the relation to the other language-arts?*

"Composition follows reading in the order of the school, as reading follows speech in the order of life." (See page 113.)

3. *To what extent does excellence in writing (composition) depend on nature and practice?*

"While we may cheerfully concede that the great writer like the poet, is born and not made, we need not hesitate to say that the ordinary writer is made and not born." (See page 115.)

4. *Mr. Hinsdale gives several directions and hints for the guidance of the teacher of composition. Give the substance of three or four of them.*

"Adapting the work to the pupil, enlisting the interest and pleasure of the pupil, choosing and assigning subjects within easy range of the pupils powers" are some of the duties of the teacher of composition. (See pages, 117-128.)

5. *What are the objects and aims to be held in view in teaching English literature?*

"Fundamentally the object of teaching literature is the same as the object of teaching reading as thought. To convey meaning is the great function of language; but the literature has also a message of grace and beauty for the soul, which is partly in the thought itself and partly in the expression of the thought. We may say, then, that in teaching literature the real element and the ideal element—the substance and the art—must be held together. Still, the major stress should be placed on thought or substance." (See pages 128-131.)

6. *Mention the "two ways in which a work of literature may excite our admiration and affect our minds."*

"There are two ways in which a work of literature may excite our admiration and affect our minds. These are, first, by the beauty of the conceptions it conveys to us; and, second, by the beauty of the language in which it conveys them. In the greatest works the two excellencies will be combined." (See page 129.)

7. *"Literature, therefore, has a grand teaching function, instructing men in politics, in morals and in manners, in taste, and in religion, expanding their minds, filling them with high ideals, and in all ways refining their character and ennobling their life." Does literature, as taught in our schools, fill this measure?*

Dr. Hinsdale is no doubt correct in his statement that it does not. (See page 132.)

PHYSIOLOGY.

1. *Making use of the above illustration, describe such part of the digestion as takes place in the organs therein represented.*

Digestion is the process by which food is transformed into a nutritive semi-fluid mass capable of being absorbed; it consists of five combined processes,—mastication, insalivation, deglutition, chymification, and chyliification. Each of these processes can be easily described

READING.

What is the difference between the reading of the primary grades and the literature of the high school or college?

"The main difference between the reading of the primary grades and the literature of the high school or college is one of degree and not of kind." The thought all along the line should be suited to the comprehension of the pupil. At no time should the oral expression be neglected. In the early grades much attention should be paid to it. The first three or four years are of necessity, much taken up with symbol interpretation. When this is fairly mastered, more literary interpretation can be accomplished in a given time.

2. *What has been the result of studying the history of literature in the schools instead of studying the literature itself?*

Plainly, one result has been the gaining by the pupil of a knowledge of the history of literature, instead of literature itself; and another has been the gaining by the student of a wrong idea of what constitutes literature.

3. *What is in the story of "The Fox and the Grapes" that makes it illive? Is it literature?*

The fable of "The Fox and the Grapes" lives because it voices universal experience. It is certainly to be ranked as literature.

4. *Using the poem "One, Two, Three" as an example, show how the third, fourth, and fifth grades may work out the thought in selections read.*

See Teaching the Language Arts, pages 111 (a-j).

5. *Mention some points to be considered in the compilation of school readers.*

Attention should be paid to "the length and unity of the lessons," "the literary quality of the lessons," etc. See Teaching the Language Arts pages 103-107.

SCIENCE OF EDUCATION.

1. *In Book V of the Republic, Socrates states the distinction between opinion and knowledge. What is this distinction?*

"All isolated or uncriticised judgments are purely relative, and their negation is as true as their affirmation. This incoherence constitutes them the province of 'seeming' or 'opinion', in which common-place minds are

content to rest, while those possessed by the true spirit of science—the philosophers—insist on criticising all judgments till in every group of phenomena they have detected a single and central principle.”

2. *What does Socrates regard as the highest attainable good in life?*

“You have often been told that the idea of good is the highest knowledge, and that all other things become useful and advantageous only by their use of this.” See *Plato the Teacher*, pages 314-315.

Another translation of the same passage reads, “you have often been told that the chief good is insight into good.” A commentator remarks, “that this circle seems inevitable in any attempt at a definition of the good by a term outside of it.”

3. *What course of study is recommended for the rulers of the State?*

A knowledge of the Ideal Good is considered necessary if the philosophers are to be perfect rulers. The use of education is to turn the mind from that which is visible and temporal, and to fix it upon the invisible and eternal. The preparatory studies are arithmetic, geometry, astronomy, harmonics; he who has been duly trained in these will be fitted to enter on the crowning study of dialectics, which does not start with assumed premises like the others, but examines and tests the premises themselves, and does not rest till it has traced back each portion of knowledge to its fundamental idea, and, further, has seen how all ideas are connected with the Ideal Good. In addition, they should be educated in all the machinery of government, from the local to the rational, and in political economy in all its various phases; but in the practical application of this knowledge, “justice” as understood by the philosophers is to be the guide in all actions and decisions.

4. *What kind of knowledge does Plato consider best suited to the child mind?*

“The elementary education of these children should consist of music and gymnastics. With Plato, music includes poetry, and in a wider sense, all the arts. The essential thing about the elementary education is that all things therein shall be determined by the philosopher in accordance with the absolute truth.”

5. *When is a State wise?*

“And by reason of this smallest part or class of a State, which is the governing and presiding class, and of the knowledge which resides in them, the whole State, being in the order of nature, will be called wise.” The State will be wise when its rulers are wise, just, courageous, and temperate. (See *Plato the Teacher*, page 262.)

6. *Describe the form of government favored by Socrates.*

Briefly, a government by a chosen few who have been specially educated and selected for this task. The whole of the Republic is an elaboration of this ideal of government.

THORNTOWN will graduate ten from its high school this year. Commencement will take place May 3. Annette E. Ferris is principal.

MISCELLANY.

THE high school course in Worcester, Mass., is five years.

VALPARAISO now has a curfew ordinance. Let the good work go on.

YALE UNIVERSITY catalogue shows an attendance in that institution of 2,500 students.

FAIRMOUNT ACADEMY continues to do its usual high grade work and continues to prosper.

THE Boone County Normal will open in Lebanon, May 9, for six weeks. Jas. R. Hart and Chas. A. Peterson are the instructors.

THE Mt. Vernon Summer Normal School will open June 6 and continue four weeks. The instructors are E. G. Bauman, J. W. D. Butcher and Chas. Greathouse.

RUSHVILLE has had a good year. The enrollment in the high school is 110—double what it was five years ago when Samuel Abercrombie became superintendent of the schools.

MISS HARRIET M. SCOTT, at the head of Detroit's Normal and Training School, is making a great reputation and is in much demand. Bay View gets her for its school of Methods.

BLOOMFIELD graduated from its high school this year, fourteen students. President Burroughs, of Wabash, made the address of the occasion, and Supt. W. T. Brown presented the diplomas.

WABASH COLLEGE proposes hereafter to sustain a chair in the Art of Teaching. Teachers taking this special course will be permitted to do work in any of the other departments for which they are prepared.

CORRECTION.—It was stated in last month's JOURNAL that Dr. Jas. Milne was the author of Arithmetics, etc. This was a mistake. It is Dr. W. J. Milne, president of the State Normal School at Albany, N. Y., who is the author.

MASSACHUSETTS employes in its public schools 12,843 teachers—men 1,120—women 11,723. One hundred and thirty-five cities and towns appoint teachers to serve at the pleasure of the board; all others elect teachers annually.

COMPLIMENTARY.—A prominent educator writes: "From about forty school journals that I have seen from nearly all states, yours (the INDIANA SCHOOL JOURNAL) is one of the best for substantial material and scholarly treatment."

THE fourth term of the Winona Summer School will begin July 5 and continue six weeks. Dr. Jno. M. Coulter will be at the head of this school. For a full "announcement" address the registrar, Prof. Geo. W. Benton, Indianapolis.

THE officers of the Indiana Society for Child-Study are Sanford Bell,

Valparaiso, president; Howard Sandison, Terre Haute, vice-president and secretary; R. I. Hamilton, Huntington; E. B. Bryan, Bloomington; and F. L. Jones, Tipton, executive committee.

"AMERICAN HISTORICAL STUDIES" is the title of a series of leaflets published by J. H. Miller, Lincoln, Neb. The last one is on "The Civil War and Reconstruction." It consists of twenty-four pages. These leaflets are monthly and cost only 25 cents a year.

It is unnecessary to remind Indiana teachers of Bay View for their vacation, for many of them go there every year. The Summer University's reputation, and the magnificent climate of northern Michigan, are drawing more teachers that way every year.

THE Trans-Mississippi Educational Convention will be held in Omaha, June, 28, 29, 30. Some of the ablest men in the country are on the program. This will afford Indiana teachers a chance to "go west" at a cheap rate and at the same time attend a profitable convention and see a great exposition.

W. E. HENRY, the State librarian, among other good things, has begun the work of grouping all the books that treat on the same subject so that when a person wishes to find the literature of a subject it can readily be found. Bulletin No. 1 gives the list of all the books in the library that treat on taxation

C. W. KIMMEL, superintendent of the Butler schools, recently called a mass meeting of the patrons and friends of the schools and treated them to a series of short addresses on practical subjects, prepared for the occasion by prominent citizens. This might be called an extended mothers' meeting. A good idea.

THE 19th annual encampment G. A. R., Woman's Relief Corps, Sons of Veterans and Ladies' Aid Society; also Ladies G. A. R., will be held at Columbus, Indiana, on Wednesday and Thursday, May 18 and 19, 1898. A rate of one cent per mile, coming and going has been secured on all railroads. A royal welcome is promised all who attend.

"HOW THE DIVINE COMEDY MAY HELP TO MAKE THE CHILD A POET" is the title of a leaflet that comes from the department of psychology in the State Normal School. It was prepared by Miss Moran, teacher in the Model school. This is designed to show how literature of a high grade may be adapted and used with children as low as the third grade.

DOES a college education pay? This question is often asked. Let the following facts make answer: College graduates number only *one in five hundred* of the whole population of the country and yet they have furnished 70 per cent. of the supreme court judges, 60 per cent. of the presidents, 50 per cent. of the senators, and 3 per cent. of the congressmen.

THE University of Illinois has called a "University High School Conference" to be held May 18, 19, 20. "The High School Course of Study" will be discussed by Wm. T. Harris, Com. of Education. Nicholas Murray Butler will also read a paper, and a number of other people of less promi-

nence will take part. State Supt. D. M. Geeting will read a paper on "The Township High School."

MARTINSVILLE.—*The Martinsville Republican* recently published a special 16-page edition in which it gave large space to leading citizens and the most important institutions of the place. It is to its credit that it gave large space to the schools. Superintendent Kerlin's portrait appears and the schools are spoken of in most commendable terms. There is no doubt but that Mr. Kerlin is doing excellent work.

"INDIANA TEACHERS' CO-OPERATIVE ASSOCIATION" is the name of an organization in Fulton County. It is an organization among the teachers for mutual helpfulness. This helpfulness is to be exerted in the way of raising the standard of teachers, intellectually and morally, to secure financial advantages, to help one another to places, etc. Most of the Fulton County teachers belong to it and County Superintendent W. S. Gibbons thinks it is having a good effect.

The Register of Lehigh University, at South Bethlehem, Pa., recently issued, shows an attendance of 363 students, divided among courses as follows: Mechanical Engineering, 106; Civil Engineering, 84, Electrical Engineering, 66; Mining Engineering, 46; Analytical Chemistry, 28; Architecture, 10; Literary and Classical Courses, 23. The teaching force comprises 43 instructors. *The Register* shows that while the University is largely devoted to technical branches, the culture studies form a large part of the curriculum.

COLUMBIA UNIVERSITY has received a gift of New York real estate valued at \$1,100,000 for an endowment for its library. The giver is Mr. Joseph F. Loubat, of New York and Paris, who establishes the fund as "The Galliard-Loubat Library Endowment Fund," in memory of his mother and father. The income of this fund will not be immediately available, as it is a condition of the gift that the property shall pay Mr. Loubat an annuity of \$60,000 during his lifetime; but it assures what will eventually be an ample endowment for a great library.

PURDUE UNIVERSITY.—The annual catalogue for 1897-8 comprises nearly 200 pages and sets forth very completely what the institution is doing. It shows that Purdue stands for quality rather than quantity; that it stands for a high order of work rather than for numbers. It will not permit specialists to push forward and take an advanced degree in some special line without ample general culture as a foundation. Each department is headed by a *master*. Purdue is doing a great work. For catalogue and particulars address the president, J. H. Smart, La Fayette.

THE teachers of Harrison township, Delaware County, at their last regular meeting passed a series of resolutions which they have sent to the JOURNAL for publication. The resolutions of general interest are the following: One in favor of the support of the Y. P. R. C.; one expressing approval of the Teachers' Reading Circle, and the following which is in full, "Resolved, That we express ourselves in sympathy with all higher edu-

cation, and the support of the State schools by the State but that we are in favor of a re-organization of the State Board of Education so as to make it separate and independent of the State schools."

THE Trans-Mississippi and International Exposition, to be held at Omaha next summer, is trying to make its educational department a complete success. It is proposed to have an educational convention, June 28, with thousands of teachers in attendance. The Indiana State Teachers' Association declined a special invitation to attend, on the ground that the National Association will hold its meeting not far from the same time and most teachers would prefer the Washington meeting. This will not prevent teachers preferring to spend their vacation West from looking in on Omaha. The government will make an exhibit and will issue postage stamps commemorative of this Exposition.

PALMYRA, IND., April 7, 1898.

Editor Indiana School Journal:

In your answers to State Board questions used in February, I find the following question and answer in geography: (a) "How many degrees distant from each other may two places be in the same latitude?" (b) "In the same longitude?" Your answer, (a) 90°; (b) 180°. Precisely the same answer is given in the *Inland Educator*. The answer is incorrect.

Two places in the same latitude may be 180° distant from each other, and two places in the same longitude may be 180° distant from each other, *i. e.*, the north and south poles.

It would be interesting to know how many county superintendents, in grading February manuscripts, accepted the answer as given by the *SCHOOL JOURNAL* and *Inland Educator* as correct, and, also, how many applicants for teacher's license, who passed the February examination, gave the same incorrect answer, never doubting but that they were right.

I hazard the guess that at least seventy-five per cent. of both county superintendents and teachers—who passed the February examination—would have answered the question just as it is answered in our two leading educational journals.

If the mistake in answering this question has been general, and I believe it has, will some one tell us why?

A. B. FRANTZ.

OWEN COUNTY TEACHERS.

A large delegation of Owen County teachers was prevented from reaching Terre Haute by high water. The Owen County people who were in attendance held a meeting in the parlors of the Terre Haute House. Prof. Aley, of Indiana University presided. Interesting experiences were given by those present. Among the prominent Owen county educators present were Supt. D. S. Kelley, of Jeffersonville; Robert Spear, Evansville high school; Prof. J. B. Wisely, State Normal; C. S. Meek, Terre Haute high school; Prof. John Shepherd, Rose Polytechnic; O. P. Foreman, Rockport high school; Supt. Hiatt, Gosport and Supt. Robert Knox, Staunton. About fifteen Owen county students of the State Normal were

present. Ten of these will graduate in June, a larger number than from any other county in the State. It is the intention to make these meetings a feature of every educational association.

A DIFFICULT PROBLEM.—CAN YOU SOLVE IT?

DEAR TEACHERS:—When I was a lad of sixteen, I found in Adam's Arithmetic the following problem, which I offer you for solution :

EXAMPLE.—Where shall a pole 120 feet high be broken that the top may rest on the ground 40 feet from the base? Answer :—53½ feet.

Until 1894 I was unable to solve this example, believing it was not a true arithmetical question, but at that time I was placed in a position where I must prove it or acknowledge in public a defeat. I solved it and finally evolved a simple explanation. I now offer it to you. It is not algebraical in any manner. If you desire any instruction write enclosing stamp. It will be good practice to try even if you fail to get satisfaction by your own efforts. Give it to your advanced pupils and if any of them obtain a satisfactory explanation send it to me.

Very respectfully,

Mukwonago, Wis.

A. H. CRAIG.

FRIENDS' NATIONAL UNIVERSITY.

Friend W. A. Bell :—It may be of interest to JOURNAL readers to know that the great "Garfield University" building with grounds, in Wichita, Kansas, has recently been bought by James M. Davis, a Quaker or Friend, of St. Louis, Missouri, and is to be presented to the Friends for their management, under the name of "The Friends' National University." It will open this coming fall for admission of students under name and management, above given. It is believed and is claimed to be the largest educational building under one roof on the American continent. It is 232 feet long, 175 deep, four stories high on a basement twelve feet, containing sixty-five rooms, not all furnished. Among these rooms is a chapel estimated to seat 3000 people. A word of history may be of interest. The building was put up in boom days '86-7, under auspices of the "Christian Church." A heavy debt was incurred; the boom burst; the debt could not be paid, so in time the building was bought by a gentleman in Boston, to satisfy his and other claims. Said gentleman, Mr. Harding, held it till last winter, when he sold it for \$100,000 to Mr. Davis as above stated.

The school opened under the auspices of the Christian Church and prospered finely for two or three years, but the building debt could not be met and the school closed. The original cost of the building was \$165,000.

Respectfully,

Wichita, Kan., April 18, 1898.

G. W. Hoss.

TOO DIFFICULT.

"College Tidings" is the name of a little paper published at the Tri-State Normal School, Angola, Ind. The March issue contains an article

under the caption "A Decade of Experiment," which severely takes to task the State Board for compelling teachers in their reading circle work, to study subjects and books beyond their comprehension. The following extracts from the article indicates its tone :

"A decade ago all the teachers in the State were facing toward pure psychology. At institutes, in reading circle work, and in the magazines the teachers circled round this subject. Teachers that had to stand on tip toe to see into the mystery of an ordinary English sentence or to understand what is meant by the reciprocal of a number, were reading "words, words, my Lord."

"The terms of pure psychology were as inexplicable to them as the "Cosine of Noah's Ark" in their literary work. One brief winter is given to this study. * * * * * The teachers have learned a lesson. The thing to do is to jump into the "unknown" sea. The officers of the ship will furnish intellectual floats. There is no need of paddling to keep one's head above water. Seeming to understand is equivalent to understanding. Corral the teachers in a court house or a church, invite the philosophers in, have the county superintendent lock the door, let the lecturer account for the universe in general terms, and let the teachers take notes."

The study of Plato is severely criticised. It is insisted that the board might have selected something that would have been vastly more helpful to the masses of teachers than "Plato" has been or will be.

ORIGIN OF THE NORTHERN INDIANA TEACHERS' ASSOCIATION.

During the session of the Indiana State Teachers' Association held at Indianapolis, in December, 1882, a few of the superintendents of Northern Indiana met in the parlors of the Grand Hotel for the purpose of discussing the feasibility of organizing a Northern Indiana Teachers' Association. Among those present were James F. Scull, of Rochester, J. K. Waltz, of Logansport, and D. W. Thomas, of Wabash. It was the opinion of those present, that such an Association was both feasible and desirable, but no one wishing to take the initiative, the meeting adjourned, as had previous ones, without taking any definite steps towards the formation of such an organization. Thus the matter rested until the following March, when Superintendent Thomas, having called up Superintendent Waltz by telephone, inquired if he were willing to be one of two to assume the responsibility of attempting to organize the long talked of Northern Indiana Teachers' Association. A personal interview held in Superintendent Waltz's office, was the result, where it was agreed that the attempt should be made and that Superintendent Waltz should assume the duties of President, and Superintendent Thomas, those of Chairman of the Executive Committee.

In accordance with this plan, a program was arranged and the first meeting was held at Island Park, in Sylvan Lake, Rome City, Ind., July 9 and 10, 1883.

The first three meetings were held at Rome City and the next two at Maxinkuckee, all in August. The attendance was uniformly small, and it was decided to change the time for holding the meeting to the spring vaca-

tion. Since then, the attendance has increased. The last one at Kokomo was the largest meeting ever held in this country, outside the national meetings.

TREASURER'S REPORT.

James R. Hart in Account with the Indiana State Teachers' Association.

1897.

RECEIPTS.

| | | |
|-------------|--|----------|
| Jan. 1. | Balance on hand..... | \$200 68 |
| Dec. 28-30. | Received from members..... | 345 50 |
| | Received from W. H. Smith's lecture..... | 11 90 |
| | Received from Grand Hotel..... | 125 00 |

EXPENDITURES.

| | |
|--|---------|
| By cash to F. D. Churchill, postage, voucher 1..... | \$ 1 20 |
| By cash to W. A. Hester, Com. expenses, voucher 2..... | 2 73 |
| By cash to Emma B. Shealey, Rec. Sec'y, voucher 3..... | 17 00 |
| By cash to Geo. W. Thompson, Assistant Sec'y, voucher 4..... | 4 00 |
| By cash to E. O. Holland, Assistant Sec'y, voucher 5..... | 6 00 |
| By cash to J. C. Gregg, Assistant Sec'y, voucher 6..... | 3 00 |
| By cash to J. P. Funk, Com. expenses, voucher 7..... | 19 35 |
| By cash to B. F. Moore, Com. expenses, voucher 8..... | 13 55 |
| By cash to B. A. Ogden, Com. expenses, voucher 9..... | 19 49 |
| By cash to F. M. Searles, Com. expenses, voucher 10..... | 15 38 |
| By cash to J. M. Culver, Com. expenses, voucher 11..... | 15 10 |
| By cash to T. F. Fitzgibbon, Com. expenses, voucher 12..... | 78 50 |
| By cash to State House Janitress, voucher 13..... | 4 00 |
| By cash to Central Passenger Association, voucher 14..... | 17 00 |
| By cash to James R. Hart, salary, postage, express, exchange and supplies, voucher 15..... | 84 87 |
| By cash to William Hawley Smith—lecture, voucher 16..... | 75 00 |
| By cash to Lebanon Patriot and Lebanon Pioneer for printing and supplies, voucher 17..... | 47 50 |
| By cash to Baker and Thornton for chairs and supplies, voucher 18..... | 17 50 |
| By cash to W. R. Snyder—National Association Headquarters, voucher 19..... | 75 00 |
| Balance on hand, January 1, 1898..... | 166 91 |

\$683 08 \$683 08

Number enrolled at '97 Meeting..... 575

Number enrolled at '96 Meeting..... 631

Respectfully submitted,

JAMES R. HART,

Permanent Sec. and Treas., I. S. T. A.

NORTHERN INDIANA TEACHERS' ASSOCIATION.

This Association meet at Kokomo, March 31 and April 1-2. Thursday was visiting day and hundreds of teachers visited the Kokomo schools. On such occasions it is almost impossible for pupils and teachers to make an

average showing. It was a matter of common remark that the Kokomo teachers did themselves great credit. They "kept their heads." In the absence of a report from the secretary, the JOURNAL will simply give a brief summary of what was done.

The meetings were held in the M. E. Church which will seat two thousand. Every session was crowded to overflowing. The meeting was peculiar in that all the work in the session of the general association was done by two persons. These two men were Dr John Dewey, of Chicago University, and Dr. J. A. McClellan, president of Ontario Normal College. They are both men of national reputation. Their work was eminently satisfactory. The annual address was by Rev. N. D. Hillis, of Chicago, Professor Swing's successor. His subject was "John Ruskin's Message to the Twentieth Century." He fully sustained his high reputation as a lecturer. He simply captured his audience. The sections all held large enthusiastic meetings.

The reception given Friday evening by the teachers was an elegant affair for which they deserve much credit and many thanks.

The paid enrollment was \$2,205, and the weather being propitious, all were there. Kokomo took good care of them and then complained that there were not more. Most of these persons came the first day; three-fourths of them stayed till after adjournment at 12 o'clock Saturday.

The Association next year will go to Ft. Wayne. The officers for the ensuing year are: President, W. C. Belman, of Hammond; vice-president, Charles E. Vanmatre, of Muncie; secretary, Miss Beulah Evans, of Marion; treasurer, W. A. Millis, of Attica; railroad secretary, George W. Ellis, of Goshen. Executive Committee—Chairman, J. L. Glasscock, of Lafayette; W. E. Browne, of New Castle; W. A. Bell, of Indianapolis; I. V. Busby, of Alexandria; F. L. Jones, of Tipton; J. W. Hamilton, of Monticello; Robert I. Hamilton, of Huntington; Chester A. Lane, of Ft. Wayne; William Clem, of South Bend.

The souvenir program, furnished by Kokomo, was a work of art and "a thing of beauty." To work up such a meeting as this and carry it through successfully indicates ability not ordinarily found. Supt. Woody deserves most of the credit for the complete success of this record-breaking meeting.

HISTORICAL SKETCH OF THE SOUTHERN INDIANA TEACHERS' ASSOCIATION.

For The Indiana School Journal:

During the recent session of the Southern Indiana Association, at Terre Haute, there was some dispute as to the origin of that very successful Association. Permit me to say that to Superintendent H. B. Jacobs, then superintendent of the New Albany schools, is more credit due than to any other. The facts are as follows:

"During the session of the State Teachers' Association, January, 1878, H. B. Jacobs, then superintendent of the city schools of New Albany, Indiana, invited Supt. T. J. Charlton, of the Vincennes schools, and J. M.

Bloss, superintendent of the Evansville schools, to meet him in his room to consider the propriety of establishing a 'Southern Indiana Teachers' Association.' His views were indorsed, as were also his suggestions, to hold the first meeting in New Albany about the time of the spring vacation. The meeting was held March 20, 21, 22, 1878.

"Superintendent Jacobs was the president of the first meeting and Superintendent Charlton was chairman of the executive committee as well as recording secretary. The meeting was a great success and the second meeting was held at Seymour. At this meeting Mr. Charlton was president and Mr. Jacobs was at the head of the executive committee. It soon became evident that the time of year for the meetings (spring vacation) was wisely chosen. The success of the Southern Indiana Association led to the organization of the Northern Indiana Teachers' Association, five years later. Both have grown far beyond the anticipation of their founders. The enrollment of each, this year, was about 2,200.

"Owing to some careless executive committee the proper number of annual meetings was at some time printed incorrectly. The late meeting at Terre Haute was the twenty-first meeting and not the twenty-second. This error has been known for some years and can be corrected next year.

"There were several previous attempts to organize a Southern Association. Two calls were made for meetings at Seymour, Indiana, but they each adjourned 'sine die.' The latter of those meetings was called by J. C. Chilton, of Orleans, Indiana, and was attended by R. A. Ogg, of Mitchell; Charlton, of Vincennes; Dr. John, of Moore's Hill; Superintendent Caldwell, of Seymour; and seven or eight 'book agents.' It did no business but visited the Seymour schools."

The above statement has been made to correct some erroneous impressions in regard to the origin of this Association.

I have corresponded with H. B. Jacobs and John M. Bloss and they both agree with me that the above statement of facts is correct.

Plainfield, Ind., April 15, 1898.

T. J. CHARLTON.

SOUTHERN TEACHERS' ASSOCIATION.

The Southern Association convened at Terre Haute March 24. It happened that this was in the very midst of the floods and railroad washouts. Hundreds that expected to attend were prevented from so doing by the demoralization of railroad trains. Notwithstanding these facts, teachers came by the car load until this proved to be the largest meeting the Association has ever held, and counting those that paid their fees and enrolled but did not reach there, the largest meeting yet held in the State.

The Madison teachers started Wednesday morning expecting to spend most of that day in the Indianapolis schools; but when they got to Columbus, their train was stopped by a washout. They then changed their route and went south to Seymour, west to Mitchell, north to Greencastle, west to Terre Haute, spending fifteen hours on the way.

By the time the Columbus teachers were ready to start they could neither get north to Indianapolis, nor south to Seymour, so they all stayed at home. The Martinsville teachers *all* expected to attend but were water-bound and not even a representative got there. Others that might have reached there were afraid to leave home lest they might not be able to return on time.

Those that were there were well re-paid. The program as published in the May JOURNAL was carried out. The child-study session, Thursday, P. M., was one of the best meetings of the series.

The opening meeting of the general association was immense. The addresses were timely and the music was of the highest order and gave universal delight. The president's inaugural address attracted much attention. Prof. E. B. Bryan's address, Friday, P. M., was praised by all. T. J. Charl-

ton's paper on "The Place of the Reform School in the Educational System of the State" was one of exceptional interest. The annual address, on "The Form and Substance of Culture," by Rev. Washington Gladden, of Columbus, O., was a literary treat.

The Saturday morning session was not largely attended, most of the teachers hurrying away on account of the unsatisfactory condition of the railroads, and the uncertainty of trains. So they missed the excellent address of Samuel T. Dutton, of Massachusetts.

The people of Terre Haute did all that could be asked in the way of entertainment and the newspapers were unexampled in their generosity. The proceedings and many of the papers were published in full. *The Gazette* published a sixteen-page edition.

Officers elected for the next year are as follows: President, J. P. Funk, New Albany; first vice-president, W. A. Hester, Evansville; second vice-president, C. M. McDaniel, Madison; secretary, Janie Deming, Shelbyville; treasurer, W. D. Kerlin, Martinsville. Executive Committee: Supt. J. H. Tomlin, chairman, Shelbyville; W. A. Hester, Evansville; C. M. McDaniel, Madison; W. F. Axtell, Washington; E. C. German, Greensburg; Louise Barbour, Terre Haute; Kittie Palmer, Franklin.

The next meeting of the Southern Association will be held at Shelbyville. The Association voted that the schools take up penny collections for the benefit of the destitute in Cuba. The sections all held profitable meetings. The complete enrollment of the Association was 2,357.

Supt. W. H. Wiley, as chairman of the executive committee, did a great work and deserves unstinted praise.

PERSONAL.

DR. A. E. WINSHIP will be one of the Bay View educational lecturers this year.

D. T. POWERS, formerly of Indianapolis, has had a prosperous year as superintendent of the schools at Paoli.

CHAS. R. SKINNER has been re-elected superintendent of Public Instruction of New York for a term of three years.

W. L. CORY, principal of the Sheridan high school, has been giving entire satisfaction to both pupils and patrons.

W. S. HISER, of Richmond, was elected president of the Penmanship section of the Northern Indiana Teachers' Association.

EZRA KELLER, of Corydon, has just completed his twenty-fifth year as a school teacher without missing a single term. This is a good record.

J. M. HALL has been at the head of the Bay View educational system for thirteen years, and his winter office has always been at Flint, Mich.

FRANK L. JONES, superintendent of the Tipton schools, is out on leave of absence, and is at Indiana University for a degree which he expects to get at the close of this year.

J. W. HAMILTON is closing his eighth year as superintendent of the Monticello schools. He is a hard worker and is getting some excellent results. Some of the work done in his schools is unique.

M. H. STUART, who has been at Sheridan for five years, the last three as superintendent, is spending the spring and will spend the summer at Indiana University. He is working for a degree. Reports say that the Sheridan schools are in excellent condition.

MISS ALICE LAMB, a teacher of much promise died at her home in Elizabeth, Feb. 4. Miss Lamb was a graduate of the State Normal class of '92. She was teaching in Anderson when her health failed. She was highly regarded as a teacher and a lady by all who knew her.

GEO. F. BASS, now manager of the Y. P. R. C. books, but for many years supervising principal in the Indianapolis schools, will have leisure during the summer and would make a few engagements to do institute work. Mr. Bass is one among the best institute workers in the State.

W. H. GLASSCOCK, now a student in Indiana University, positively declines to become a candidate for Superintendent of Public Instruction. He says that he is not unmindful of the kindness of his friends, but that he can not turn aside from other matters which he has before him.

J. W. DAVIDSON, of Evansville, for many years superintendent of the Vanderburg County schools, has decided to be a candidate for State Superintendent before the Republican State Convention. He is a graduate of Union Christian College at Merom and knows well the needs of our schools.

SUPT. T. J. CHARLTON has been at the head of the Reform School for boys for eighteen years. He is the right man in the right place. He is so eminently adapted to this difficult work of reforming boys that he has been left free from the influences which the whirligig of politics so often brings.

JNO. O. LEWELLEN, for many years superintendent of Delaware county, has organized a life insurance company on a new plan. It is called The Citizens' Life Association, with its headquarters at Muncie. The company proposes to give insurance at actual cost. It is endorsed by the most reliable men in Muncie.

GEO. W. HOSS, former editor of the JOURNAL, is now at the head of a school of oratory in Wichita, Kansas. One of his classes made up largely of citizens and business men; to whom he had been teaching parliamentary law and extemporaneous speaking, passed a very complimentary resolution in which Dr. Hoss is spoken of as a person of "ability, integrity and sterling manhood." Many of the older Indiana teachers remember Dr. Hoss with much pleasure.

A. D. MOFFITT, who is now editor of a paper at Elwood, was formerly superintendent of the schools at Decatur. It will be remembered that the school board preferred charges of immorality against him and dismissed him about the middle of the last school year. Mr. Moffitt indignantly denied the charges and remained upon the ground ready to do his duty. At the end of the school year, he sued the board for his salary for the full year, and has finally collected it. Mr. Moffitt feels gratified over his vindication.

MICHAEL SEILER, for many years at the head of the department of geography in the State Normal School is dead. He resigned his place in the State Normal two years ago, but still continued to reside in Terre Haute. He attended the session of the Southern Indiana Teachers' Association recently held in Terre Haute and manifested his old time interest in educational matters. Many of his friends will remember meeting him on that occasion. On Saturday night following the Association after taking his bath, he turned out the light and started to his room. He accidentally fell down the stairway and hurt himself seriously; but with the help of his wife was able to get back to his room. He said to his wife, "I begin to feel as I do when I have those attacks of heart trouble." He soon lost consciousness and an hour afterward died. The heart trouble from which he had suffered for some years past was the cause of his death. Prof. Seiler was born in Ohio but moved with his father to Dekalb County, Indiana, in 1855, when he was fifteen years old. He was a graduate of the State Normal, and did most of his teaching in that institution. Professor Seiler was a man of more than ordinary ability. He was well read and thought deeply, had a fine command of language, expressed his ideas logically and clearly and "had the courage of his convictions." No one ever doubted where he stood, and he defended his position with great force and skill. As a man among men he was frank, genial, earnest, courteous and kind and all who knew him well regarded him as the type of a good,

industrious citizen and sincere, honest and conscientious Christian gentleman.

HANNAH DAVIS.

Many teachers of Indiana remember with great love and veneration, Clarkson Davis, for so many years the principal and inspiring spirit of Spiceland Academy. Mr. Davis entered upon his reward many years ago, and it is our painful duty to announce to the JOURNAL readers the recent death of his wife, Hannah Davis. Mrs. Davis was herself a *great* teacher. For twenty-eight years she stood side by side with her husband, guiding, inspiring the young men and women that assembled at the Friends' Academy at Spiceland, and she died at her post as a teacher in the University of North Dakota. Her teaching was not confined to the school-room. It was her aim to convince all young people who came within her circle of influence, that there is a life beyond and infinitely better than mere material existence and to impress upon them a desire to attain to this better life.

Hannah Davis was a valued member of the Western Writers' Association. One of her contributions, "What Israel hath Done" is of special worth calling forth as it does all that is good and noble in the history of the "race."

Hannah Davis was a true friend. The last act of her life was characteristic. Accompanying Mrs. Estes as she returned from North Dakota to Indiana, with the remains of Prof. Estes, she contracted a cold on the journey which resulted in pneumonia and caused her death within a few days after her return to her Dakota home. "Greater love than this hath no man."

Mrs. Davis's remains were brought to Spiceland and buried beside her husband at Circle Grove. Her friends gathered in great numbers to pay their last tribute of respect to her as teacher, woman, friend. Though she has passed from the places of men and things, her teaching remains and her influence can never be wholly lost.

BOOK TABLE.

The Ladies' Home Journal employs the most popular writers in the country to write for it. It contains a great variety of departments and is a delight to every lady who reads it. The price is only \$1.00 a year.

The Boys' Friend is the name of a sixteen-page, two-column paper, published at Cincinnati, and edited by A. W. Conner. The paper is what the name indicates—except that girls are also included. Send for a sample copy.

Our Dumb Animals is the name of an excellent paper printed in Boston by Geo. T. Angell. Price, to teachers, 25 cents a year. The purpose of the paper is to teach kindness to animals. Every teacher should have it for the benefit of his school.

HARPERS' *Round Table*, which takes the place of Harpers' *Young People*, has been changed from a weekly to a monthly. It is one of the very best papers for boys and girls in the country. This house publishes a variety of periodicals and each ranks at the head of its class.

IN TIMES of war or of preparation for war the illustrated newspaper has exceptional value and is always worth filing for future reference. Harpers' *Weekly* is the leading paper of this kind in America. Every school which has a reading room ought to have Harpers' *Weekly* in its list.

HARPERS' *Bazar* is devoting some space each month to Club Women and Club Work. As illustrations in this department are portraits of leading club women. In this paper may always be found helpful hints for ladies

upon what to wear and how to make garments for women and children. At present William Black's serial entitled "Wild Eelin," is running. Excellent short stories and valuable household helps can be found in each issue.

RIVERSIDE LITERATURE SERIES.—Houghton, Mifflin & Co., Boston, Mass. In this series we get only the best.

No. 110—De Quincey's *Flight of a Tartar*, bound in paper, 15 cts.; in cloth, 25 cts.

No. 115—(Double number) Shakespeare's *Hamlet*. Edited by Richard Grant White. Cloth, 40 cts.

Nos. 117 and 118—*Stories from Arabian Nights*. Cloth, price, 40 cts.

Nos. 119 and 120—*Poems and Tales*, by Edgar Allan Poe. Cloth, 40c.

LITERARY ART, a hand book for its study, by Harriet Noble. Inland Publishing Company, Terre Haute, Indiana: This is a volume of 240 pages published in artistic style and intended for the use of Indiana teachers. Miss Noble, the author, was for twelve years professor of English Literature in Butler University. She is a woman of more than ordinary ability and the book is the result of her experience and observation as a teacher. The book is designed to help teachers to study and to teach literature in a systematic way. Her suggestions in regard to methods of study, plans for analysis, schemes of classification, etc., will make the book of value, not only to teachers but to the general reader.

STORY OF AENEAS. By M. Clarke. Cloth, 12 mo, 203 pages. Price, 45 cents. American Book Company, New York, Cincinnati and Chicago. This book is a companion volume to the "Story of Troy." It presents in a simple narrative the history of the wanderings and adventures of the celebrated Trojan hero after the destruction of Troy, which, as related by the famous Roman poet, have been read with delight for nearly 2,000 years. Besides a map showing the wanderings of Aeneas, there are ten full-page reproductions of famous works of art selected with reference to their value in elucidating the text. The contents, literary style and artistic execution of the book make it an attractive and instructive volume for the young reader.

SELECTIONS FROM THE POETRY OF ROBERT BURNS, with notes, introduction and glossary by Mrs. Lois G. Hufford, teacher of English in the Indianapolis High School. Boston; Allyn & Bacon. Price 35c. This is one volume in "The Academy Series of English Classics." While primarily prepared for use in secondary schools, this volume will be welcomed by every lover of the Scotch poet. Mrs. Hufford has selected such poems for consideration as show the poet at his best. She has considered several, having for a theme *patriotism*, and a few that show the poet's habit of moralizing upon common everyday occurrences. "The Cotter's Saturday Night" and "Tam

Indigestion

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This preparation by its action in promoting digestion, and as a nerve food, tends to prevent and alleviate the headache arising from a disordered stomach, or that of a nervous origin.

Dr. F. A. Roberts, Waterville, Me., says: "Have found it of great benefit in nervous headache, nervous dyspepsia and neuralgia; and think it is giving great satisfaction when it is thoroughly tried."

Descriptive pamphlet free on application to Rumford Chemical Works, Providence, R. I. FOR SALE BY ALL DRUGGISTS. Beware of Substitutes and Imitations.

O' Shanter" receive partial consideration. Notes at the close of the book explain difficult passages and a glossary translates all Scotch terms into common English. The preface to the first edition of Burns's poems, published in 1786 is printed at the beginning. Mrs. Hufford's long experience in teaching English literature will make her work of great value to teachers.

COMPLETE GRADED ARITHMETIC, by George E. Atwood. Part I. Boston: D. C. Heath & Co. Part I, of Atwood's Graded Arithmetic, has been planned for use in the fourth and fifth grades. Work for three terms, or one year, in each grade is found and the subject developed through denominate numbers and through the various uses of the common fraction. A prominent feature of the work is the number and character of the problems. Care has been given to present such problems as will compel close thought and attention on the part of the pupil thus cultivating independence and thoughtfulness, and the large and varied number of problems offered afford constant review and abundant practice. Each day's work contains not only new work but is a review as well. All definitions, principles and rules are given in the back part of the book. Notes to the teacher throughout the text indicate when these are to be taught and which ones are to be learned. No pains have been spared to make a book that will be very valuable to every teacher working with the fourth and fifth grades.

THE STORY-TELLER'S ART. By Charity Dye, teacher of English in Indianapolis High School. Ginn & Co., Boston. Miss Dye takes it for granted that in a symmetrical educational system the story has its place, whether it should be used independently in the lower grades, or in connection with other subjects must depend upon the nature of the story. A critical study of stories should not be made before the pupil reaches the high school. Miss Dye declares "that to study fiction is to study life, it is to know character and all that goes to the making of character; it is to increase the love of literary art and to see its relation to the other fine arts." Can a study of any other branch of learning do more? This book is a hand book, not only for the teacher but also for the student. For members of clubs doing literary work, it would be invaluable. Miss Dye gives examples of work done by her own pupils which prove that her theory is not a theory only. Following the text may be found a list of good books and stories that every person should know. A very extensive index at the close makes the book very complete.

STEPPING STONES TO LITERATURE: A FOURTH READER.—By Sarah Louise Arnold, Supervisor of Schools, Boston, and Charles B. Gilbert, Superintendent of Schools, Newark, N. J. Silver, Burdette & Co., Boston and New York. This *fourth book* in Silver, Burdett & Co.'s new series of eight graded readers is no less attractive than the three which have preceded it. The series is aptly named "Stepping Stones to Literature." This series was projected and has been constructed on a new plan, the idea being to provide a new book for each of the eight reading grades in the public schools, and to present only reading matter of the best literary quality in *all* the books from the lowest to the highest. Much attention has been given to nature study and those objects in the child's world with which he is most familiar. In the First Reader we find such familiar classics as "Mary Had a Little Lamb," "Baa, Baa, Black Sheep," etc. Simple fables are given that lead up to the ancient myths. Beautiful poems, here and there, inspire the children with a love of choice sentiment carefully expressed. Beginning with the Fourth Reader, entire selections from favorite authors are given and, so far as possible, complete chapters so as to form literary wholes. Kingsley's "Water Babies," "The History of Tip-Top" by Mrs. Stowe, and "How Little Cedric Became a Knight" by Elizabeth Harrison, are given in full. While the greatest and wisest thought has been bestowed upon the subject matter of the book, equal care and thought has been given to the illustrations and the actual make-up of these books. The pictures are more numerous than in any series of books heretofore pub-

lished. Many of them are reproductions of the works of famous artists. In the Second Reader are Landseer's "Saved," Herring's "Village Blacksmith," Rosa Bonheur's "The Lion at Home," etc., while the illustrations in the Fourth Reader show fine photo-gravures of famous paintings by Millet, Titian and others. The aim of this series of readers is to help create a love for literature by giving the child literature that is attractive. The children who are fortunate enough to use the entire series through their eight years of common school life must have implanted within certainly a knowledge of, let us hope, a love for the best that books can give.

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See advertisement on second cover page and note the change in the location of Vories's Business College.

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HOW TO OBTAIN ONE YEAR'S TUITION in any course of the Chautauqua plan of education free. For particulars, address, Rooms 8-10, Lombard Building, Indianapolis, Ind. 4-3t.

FROM Monday, May 16, to Wednesday, June 15, the Indiana Kindergarten and Primary Normal Training School offers a special course of primary work for teachers of some experience. For full particulars address **MRS. ELIZA A. BLAKER**, Superintendent, No. 1003 Coe Street, Indianapolis. 4-2t.

SUPERINTENDENT OR PRINCIPAL, have you a class to graduate this year? Then write Supt. J. M. Davis, Marble Rock, Iowa, for a *free* copy of sheet music, copyrighted, "Commencement Song." Supt. O. J. Laylander, Cedar Falls, Iowa, says: "It's the best thing out. Send me thirty copies for my June class."

SCHOOL BOARDS contemplating changes can learn the address of the best Western and Eastern teachers, willing to change places, by addressing Orville Brewer, manager of the Teachers' Co-operative Association, 101 Auditorium Bldg., Chicago. We can assure all who write of confidence and honorable treatment. 2-tf.

TEACHERS who are interested in making their vacation earn something for them should take notice of the "Botanical Aid," a series of twenty-eight charts designed for teaching Botany and Nature Study. This "Aid," being entirely a new idea in teaching these subjects and the only thing of the kind on the market, seems certain to meet with a kind reception. See advertisement elsewhere in this issue. 5-1t.

A DECIDED HIT.—"Big Four" Two-Step. For the purpose of advertising the merits of the Big Four we will continue to send to all applicants mailing ten cents (silver or stamps) to cover mailing and postage, a copy of the Big Four Two-Step. We also call the attention of the band and orchestra leaders to the fact that we have had made a splendid arrangement for band and orchestra, and will send to any address, upon receipt of twenty-five cents, a full band arrangement, or upon receipt of thirty-five cents, a full orchestration. (Mark envelope "Two-Step.") E. O. McCormick, Pass. Traf. Mgr., or Warren J. Lynch, Asst. Genl. Pass. and Ticket Agt., Cincinnati, O. Mention this paper when you write.

KLONDIKE GOLD FIELDS OF ALASKA.—Now is the proper time for all people contemplating making a trip to Klondike to get information. Write the undersigned or call on Big Four agents for circulars and advertising matter pertaining to rates, routes, sailing of steamers, equipment, baggage, supplies and all detailed information. E. O. McCormick, Pass. Traffic Mgr., or Warren J. Lynch, Asst. Gen. Pass. and Tk. Agt., Cincinnati, Ohio.

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INDIANA " SCHOOL * JOURNAL

VOL. XLIII.

JUNE, 1898.

NUMBER 6.

CONTAGIOUS DISEASE IN SCHOOL.

T. A. MOTT, SUPERINTENDENT RICHMOND SCHOOLS.

Herbert Spencer has said that "the first requisite of success in life is to be a good animal, and that to be a nation of good animals is the first condition of national prosperity." As the nation is an aggregate of individuals, the history of a nation is, in a certain sense, a history of its individual units. If it is our duty to educate the minds of the children, it is equally a duty to care for, protect and train their bodies.

Our people believe that the open school-house, free to all and attended by all, is the gateway to progress and national prosperity and the best security for the liberties and independence of the individual citizen as well as of the state. All will admit that it is the sovereign duty of the state in this republic to provide the best educational facilities which the world's experience has devised for every child, not as a "benefaction but in satisfaction of the natural and inherent rights of American citizenship." It is clearly fundamental that the state is bound to see that a suitable school is maintained within the reach of every child, and that the house and its management in their hygienic relations are above reproach. The duty of the state does not stop with furnishing a teacher and a room, but the children are entitled to a reasonable protection from disease and to a physical training and development. One who makes a feast and invites his friends in large numbers to attend, and then carelessly permits poison to enter the food that is placed before his guests, pro-

ducing sickness or death, would be condemned by all as criminally careless. Equally as gross a crime is it if the state through its officers opens a school and invites, yea, goes into the highways and compels the children to come in, and then, through criminal indifference permits the poison of disease to strike down the members of the school.

Simultaneously with the annual opening of schools diphtheria, measles, mumps, scarlet fever and many other communicable diseases usually increase. This is caused partly by the neglect of school officers to carry out known hygienic laws in the school houses and about the school grounds. The congregation of large numbers of children into houses whose rooms and furniture are unclean, ventilation bad and drainage inadequate, will always tend to spread poisonous germs of disease. Some pupil in the school may have just recovered from some communicable disease, or others may be from families that have been smitten, and being infected they transmit the germs to those around them who are susceptible.

The most common communicable diseases are cholera, yellow fever, small-pox, scarlet fever, diphtheria, tuberculosis, typhoid fever, measles, mumps, itch, and certain diseases of the eyes and scalp.

The leading scientists of the country agree to the following statements of the manner of infection. Cholera and yellow fever are contracted in infectious districts rather than by contact with the sick. They are rarely communicated by a sick person to his attendants. In infected places the poison seems to be given off by the soil or from collections of decomposing organic material. In cases of cholera, discharges from the sick are in a high degree poisonous to water and food.

In cases of small-pox, the disease is contracted by exposure to the emanations from the person of the sick or from the clothing that has been in use by the sick or has been in their vicinity. This disease has, however, to a great degree lost its danger where the rules with regard to vaccination are observed.

In scarlet fever, the poison is given off from the bodies of the sick as in small-pox. But there is no vaccination that will be of any aid in this disease. The patient may communicate it during the whole period of sickness or of convalescence. Clothing that has been used by the sick or has been near them is apt to contain

the poisonous germs. These germs will retain their dangerous character for months after they have left the patient. Clothing that has been packed away for months or years may communicate the disease.

In diphtheria or membranous croup, the poisonous germs are given off from the affected surfaces which are usually in the throat or nasal passages. The discharges from these surfaces are especially dangerous. The germs may be carried a short distance by the breath of the patient. All pet animals and clothing that have been about the sick are extremely dangerous. The poisonous character of the germs will last for years in clothing or in buildings that are not properly disinfected. It seems extremely probable that the diphtheritic germ or poison is capable of increase, independently of the sick patient, in the mouths of persons not susceptible to the disease, in damp places, such as sewers, damp cellars, and especially under old houses if the floor comes near the ground, leaving a damp, poorly ventilated space, and in accumulations of filth about the house. At all events the disease often clings to such buildings regardless of all attempts to disinfect the premises. There can be no doubt as to the influence of bad hygienic conditions in maintaining the infection when once the disease has been started, and it is possible that they may at times originate it under certain conditions.

In the case of typhoid fever, as in the case of cholera, the poisonous germs are contained in the excretions of the body, especially the alvine discharges. From these sources the water is liable to be contaminated, and from the water, the milk and food. Besides contaminated water, impure air and gases are a great factor in extending this disease. It is known that this poison is, in a sense, volatile and is carried by the air, and is often known to be in foul gases arising from sewers, privies and so forth, and that breathing these poison laden gases will often produce the disease in those who are susceptible.

Tubercular consumption is acknowledged by most scientists to be a communicable disease. The sputum arising from infected lungs is surely poisonous to susceptible persons. This sputum dries and becoming part of the dust of the room is inhaled by all. Or the poison may be transferred by means of drinking cups and pencils to the mouths of others. This is not usually named in the list of communicable diseases that should exclude persons

from the school-room. But it is now believed by the best physicians of the age that pupils and teachers having this disease should be excluded from all schools. It has been said that more persons die from tuberculosis than from all other diseases usually named as contagious. In cities where all afflicted with tuberculosis have been excluded from school the number of cases among children has greatly decreased.

The poisonous germ from measles arises from the skin, and is also thrown out by the breath. In the case of mumps it is always carried by the breath. In case of itch and certain diseases of the skin, eyelids and scalp, poisonous emanations fall off the body, become part of the dust of the room and thus are brought within the reach of all.

In addition to these facts it is undoubtedly true that most of these diseases are apt to appear in so mild a form that they can not be detected by the usual observer. Mild forms of typhoid and scarlet fever are of frequent occurrence in which the germs of disease are as potent as if the patient were dangerously ill. In these cases the germs are spread and affect those that are susceptible as seriously as if the original case had been more malignant. Many cases of diphtheria are unknown to teacher or parents and do not cause the child to be sick enough to complain. In these cases the sputum of the child filled with germs of disease is spread by the breath, by the drinking cup and bucket, and by pencils and slates. More than that, it has been clearly demonstrated that the diphtheritic germ will live and increase in the mouths and throats of persons who are not susceptible. The secretary of the State Board of Health of Indiana, Dr. J. N. Hurty, instances such a case in a school where a child having diphtheria was removed, and the building thoroughly disinfected. After a week's time school was opened and another case appeared within a few days. This child was removed and the school again closed and the building disinfected in every way known to science. Again, soon after school opened another child took diphtheria. Dr. Hurty then called the school together and prepared cultures from the spittle of all the children and the teacher. The disease germs were found to be in the teacher's throat. Yet, she had not had the disease nor did she have it. The drinking cups, the water bucket, the pencils, slate or other medium had probably carried the germs from the mouth of the teacher to the children.

Only a month ago in our city a girl attending school who was seated in a room where ninety pupils had their desks and spent more than half their time during the school day, had a malignant case of diphtheria two or three days before the child, the parents, or the teacher knew of it. The doctor was called, the case had assumed the most dangerous form, yet no other children took the disease. In this school the ventilation is nearly perfect, the building and surroundings are clean and in as perfect hygienic condition as could be desired. The drinking cups and closets are in every way ideal. No slates are used, no pencils are exchanged.

It is clear to all that no matter how rigid teachers and school officers may be in excluding from the schools all cases of communicable disease, yet many forms of these diseases will appear in the school unnoticed. The poisonous germs are ever present in the crowded school. All these diseases are simply the result of concerted attacks of developed germ life upon the lives of susceptible persons.

In the light of these facts stands the paramount duty of all school officers and teachers to surround the schools with those conditions that will in the highest degree reduce the danger of contagion.

The first of these conditions is proper ventilation. The poisonous germs of disease are always present and the highest protection lies in their "*dilution and dispersion.*" The steady current of air passing through the room in a proper manner, diluting the poison and carrying it from the room is the absolute condition of safety.

Next to ventilation is cleanliness of the school premises and school rooms. In the filth that accumulates on the walls, floors, desks, in the cellars or basements, on the school grounds may disease germs find a resting place and an opportunity to develop. Floors should be scrubbed, desks, wainscoting and banisters should be washed and disinfected frequently. This is necessary because disease germs may be planted upon the desk tops and woodwork of the room by infected persons, and being transferred by the hands of pupils to their mouths result in disease.

The open water bucket should be condemned together with the large drinking cups. The dipping of water into cups used by many is liable to introduce spittle into the water supply and there-

with the germs of dangerous diseases. Children should drink from small cups with rounded bottoms, holding about two gills, and the water be drawn from a running stream or from faucets. The stream of water from a large faucet or from a pump will generally fill the small cup and wash the saliva from its edge. In the schools of Richmond we have from twelve to twenty faucets or running streams of water in each building of eight rooms, and use the small cups believing that we thus avoid the danger of contagion in connection with drinking.

Slates should be banished from the school on account of their uncleanness as the slate is frequently cleaned with the spittle, and as the damp slate readily collects the dust of the room, the danger of transmitting disease in this way is very great.

Pencils should never be collected and redistributed promiscuously without first being sterilized by boiling or heating or by a bath in formaldahide gas.

The cellars or basements of school buildings should be dry and the bottoms have cemented floors. The closets or privies should be clean and all discharges carried from the premises to the sewer by running water, or should be evaporated and burned in the dry closet. Vaults retaining the discharges are often dangerous.

Every building should have pleasant, clean lavatories where soap and water are accessible to the children.

The drainage of the grounds and the building should be ample.

The water supply should be pure and wholesome.

All children should be vaccinated.

Filthy and unclean children and children from unclean homes should not be admitted to school.

School authorities should refuse admittance to schools to any person from any household where a contagious disease exists or any person is affected with any evident or apparent communicable disease, or any person who may recently have been affected with such a disease, until they present a certificate signed by a reputable physician stating that the danger of infection is over, and the certificate is approved and endorsed by the health officer.

In times of dangerous epidemic all schools should be closed.

The above rules are taken in the main from those issued by the State Board of Health of Indiana, and are similar to those issued by Boards of Health in other States.

In the discussion of the prevention of disease in the school room one can never leave out the consideration of the general health and the nourishment of the children. The healthy vigorous person with natural vitality is rarely susceptible to any contagious disease. Those most susceptible are the weak, whose vital resisting powers are reduced by any cause. Among the predisposing causes to disease among children of which the school should take account, may be mentioned insufficient clothing and exposure to the cold resulting from poverty in the home, insufficient or improper food, physical exhaustion from over fatigue, loss of sleep, disorders arising from bad habits in breathing and eating. Little has yet been done by the school authorities of America in regard to the questions here considered. Yet in many cities they are being scientifically studied and many experiments are being tried. Physical exercises in schools and gymnasiums are doing much to better the physical condition of children and improve their habits of breathing. What can or should be done in regard to the food of children is a problem for each locality. In hundreds of mothers' clubs throughout the country the subject has been carefully considered. In a few cities the children in the poorer districts have been furnished a healthy lunch before each session of the school. The results of these efforts are in a measure still problematical.

In Richmond, as in other cities, we are insisting that the children be warmly clothed, and when necessary, are using the public funds to bring this about. In all cities there should be a regularly appointed school physician, paid by the school board, whose duty should be to occasionally inspect the schools, and to examine teachers and pupils in suspected cases of disease. In this way only will it be possible to exclude from school many of the milder forms of contagion. His aid will be absolutely necessary if the attempt is made to exclude from the school cases of tuberculosis. He will be able in many cases to prevent the starting of epidemics.

State Boards of Health should be given large legislative and executive powers. Their local officers in cities and counties should be given power to enforce their rules in every particular. School officers should be subject to their direction. A Board of Health with only advisory powers will be of little value to any community. Human nature is every where akin. "The child

is father to the man." There are few boys who do not resist at home and at school the exactions of authority. They insist on the right to exercise what seems to them to be their personal freedom in all cases where they can not see that danger is ahead. "The man is but the whiskered boy." He resists the exactions of the law as curtailing his endowed rights. The laws providing for the quarantining of homes or districts where contagion exists, compelling the cleaning of homes, requiring vaccination of children, prohibiting the use of vaults and cesspools, and other similar laws are always resisted and disobeyed by large numbers of people, unless enforced by officers of the law.

Fifteen million children are in the schools of the United States. The first, if not the highest duty, which confronts school officers and superintendents is the health of these pupils. The school management which fails to provide for the physical well being of the children, at least to protect them from the poisons of contagious disease, must be branded as criminal.

TEACHING GEOGRAPHY.

AIMA MORTON, JOHN WORTHY MANUAL TRAINING SCHOOL, CHICAGO.

Modern times are characterized by a lively intercourse between the earth's nations. Missionary societies, colonies and immigration are important factors of it. Railways, navigation, the postal and telegraph system draw the most distant countries near, while the newspapers daily allude to far-off regions and foreign countries. To intelligently judge of this intercourse between nations, to understand what goes on around us, geographical knowledge is required. That is the *practical* utility of it.

The description of the native country, the picturing of foreign regions with their products and peoples, awakens and captivates the attention, the first condition of all learning and stimulates the mind and renders it active. Our whole environment invites attention, so that the teaching of geography strongly promotes observation. The faculty of the memory is constantly appealed to; what has been observed creates love of nature's scenery. Conjointly with this, geography offers a helping hand to natural history and the history of mankind; it renders intelligible the rise of nations and the development of their culture. The modern

comparative method of teaching chiefly develops, through peculiar relations, the imagination, the intelligence and the judgment of the pupil. The pupil's skill in the use of language is fostered when the teacher insists upon reproduction of what has been taught, in correct diction. All this is the *formative* and material value of geography as a part of the curriculum.

The extensiveness of this science, however, forces us into an intelligent choice of available material. What must determine this choice?

Primarily this, that the selection must be made according to subjective view-points, not objective. Not what the objective nature of the science, but what the subjective nature of the child requires, must be the leading thought. It must be made a school science, so to speak. Scientific text-books are analytical in character; they begin with the universe, they treat of the solar system, and our planet, which is then considered mathematically, physically and politically. Sound, pedagogical principles make it impossible to follow this course in the elementary school. According to these, it is necessary to consider all parts of geographical instruction, it is true, but only in so far, as they fall within the horizon of the child's observation and experience, as far as sense perception can be made through pictures, models, maps and stereopticons. All the rest is excluded.

Geographical instruction, then, begins with what the Germans touchingly call *Heimatskunde*, the environment, directly observable through the senses. That is, first the school-room. Here the directions of the compass, the size and dimensions of it, are applied, scaled and drawn. Then follows the whole school, the immediate environment, the village or the town. Here, through direct observation, correct ideas must be created of house, garden, field, forest, plain, mountain and valley, island and peninsula, of brook, river, canal, nature's phenomena, etc. Without all this done thoroughly, all subsequent instruction is only a play with hollow words and phrases.

More distant subjects may now be treated. Through constant comparison with already familiar material, it may be rendered digestible. Far off seas, rivers and lakes are referred back to known waters; the size and population of a large city is compared with that of the mother country; locality and distance of foreign regions are measured by distances at home.

In a judicious limitation and an intelligent choice of available material lies the mastery and success. Only the *necessary* and *characteristic* are selected. If a two-story house cannot be had, one ought to be satisfied with a one-story affair. The question is to fit it up well. Details must be eschewed; the whole, in clearly sketched outlines, must be given. Goethe said: "*In der Beschränkung Zeigt sich erst der Meister.*" (True mastery shows itself in limitation.) This must be the leading thought. In treating Spain, then, it is not necessary to enumerate all mountain-systems, bays, cities or rivers. No mistake should be made as to selecting the characteristic; curiosities, or exceptions are not typical of the whole. The curious may serve as spice; never as the chief dish.

Material should be selected that admits of a lively and clear presentation. For this arouses interest, the most powerful lever in all instruction. The child should learn to look upon the earth, not as an inanimate sphere, full of dead mountains, rivers, bays and seas, but as the animated scene of human life. No dry classifications of countries, cities, products, etc., but life-infusing sketches must be offered. To satisfy these conditions, the teacher must be familiar with the material to be presented in the first place, but in the second place should have as much material as possible from personal and direct observation. Not much reliance should be placed in text-books in elementary schools; the teacher ought to be a living personality, instead of expecting everything from often poorly written text-books. They only stand between the pupil and the teacher, but the child, every time, prefers to get his information from the teacher himself. A text-book may be read just as well at home.

At present five different methods are distinguished in the teaching of geography. They are the *analytical*, the *synthetical*, the *constructive*, the *associating*, and the *grouping* method.

The analytic or scientific method has already been mentioned and is fit only for secondary schools or Universities.

The synthetic method starts out with a part of the earth and confines and compares all the rest with it. It is the elementary method, proceeding as it does from the known to the unknown. Harnisch, Diesterweg, Denzel, Curtmann, etc., were the authors of it. It is the only possible method in elementary schools, but requires the best efforts on the part of the teacher

and good material for education of the subject, as maps, globes, stereoscopic views, etc.

The constructive method makes the pupils draw maps of different countries, which here forms the principal means in geographical instruction; only after that has been done well, information about the country is orally imparted. This has the advantage that for different grades different maps are made, so that for each higher grade the map is worked out more in detail. It conveys a large amount of information and is useful where only one wall-map for all the grades exists. Future times will see different maps put up by map-publishers for different grades, just as we have different readers.

Opperman, Delitzsch and Sydow are advocates of this method. Map-drawing as requiring much time, ought to be confined to narrow limits, except where done at home.

The associating method continues with geography the correlating material from other studies, as history and natural history. These studies are useful as illustrating the subject at hand, but should not eclipse the geography proper.

Herbart in his lectures, strongly advocates the association, without which, he asserts, geographical instruction rests upon uncertain foundations. Sociology here finds application as well, sketching the interdependence of physical features on the one side and social institutions and the development of mankind on the other.

The grouping method, finally, combines similar subjects, as gulfs, islands, seas, etc., under one treatment and is applicable only in general reviews.

Finally comes the method *par excellence*, styled *concentric*, which was not grouped with those preceding, as in reality, it is not a method, but a mode of treatment of the ones mentioned.

The originator of it, Dr. Stoszner says: "Instruction in geography, until now, did not give satisfactory results, where each grade received only separate countries or separate parts of the mother country. Pupils, leaving school, often had obtained only fragmentary knowledge of the earth, while it could happen that the most important subjects had never been treated preserved as they were for a higher grade. Besides, the pupils in higher grades had often entirely forgotten the necessary and most important groundwork, and had all their attention

absorbed in details and ornamentation." This may often be found to-day.

Each grade, as much as possible, should receive a complete whole, to be worked out only more in detail in each higher grade. The higher grade should always begin with a thorough review and repetition of the task given in the grade immediately below it. As long as there are no separate maps in the market for the different grades, each teacher should put on the board her own map, fit only for her grade and have this reproduced. As it is now, one map for all grades, and that covered with hundreds of names, none of which are visible anywhere in the room, we are certainly in the antediluvian stage of geography instruction, as regards cartography.

Irrespective of the method employed the following points should be noticed. Geographical instruction, like other teaching, must begin with sense-perception and direct observation. As everything cannot be brought in the school room *in nature*, only the very best reproductions of it, maps and pictures and globes should be employed. A shallow box with sand will render efficient service to represent the topography of the country. Every school should have a good stereopticon with a set of well-selected plates, of domestic and foreign scenes, views, waterfalls, glaciers, bridges, mountains, etc. What was observed through the scenes must be reproduced orally, verbally or in drawing. Clear, direct and simple language must now express what the pupil has seen and heard. The teacher, especially here, should remember about golden silence; it is the pupil who must learn to express his thought and ideas. Only exercise makes the master.

If the pupils in the lower grades have been accustomed to oral reproduction, verbal reproduction in higher grades will present but few difficulties.

Worthy of attention is what Kellner says about the use of maps. "It is remarkable," says he, "that many teachers still consider a map as something explaining itself to the child and needing no explanation. They hang it up before the pupils and now lecture away *ad nauseam*; here north, there south, to the right this, to the left that," and they do not consider what a gigantic abstraction is here required of the juvenile mind. The child must learn to understand, that the colored piece of paper or linen, with lines, curves, signs and dots, is the representation of

a country. In order to do this, he must first see the reality, its environment, drawn; he must see the map spring into being, in order to be able to afterwards conclude from the map back to the reality. The teacher then draws a map of the surroundings on a horizontal plane, top side to the north, etc., so the pupil will afterward understand why north is on top, etc. This foundation of cartography must be understood first. The teacher now puts on the map no more, nor less, than the requirements which his particular grade asks for. To use maps, covered with hundreds of names, too difficult even for the seventh and eighth grades, in the fourth grade for instance, is utter nonsense; might as well give Appleton's Fifth Reader to a first-grade pupil. Physical features of a country always come first, as explaining political divisions and boundaries. Cause precedes effect. Where the map leaves off, the teacher in an interesting manner, supplies the deficiency by describing general conditions, pursuits, etc. This should not be left to the text-book, for the living personality of the teacher will impress upon the memory more permanently than any text-book can. Remembered is only that which has been strongly impressed.

Physical geography, treating of the condition of the soil, of the ocean and its phenomena, of conditions characteristic of different zones, of the waters of the continent and their peculiarities, of the atmosphere and its workings, etc., is an excellent means to enliven topographical geography.

With mathematical geography, it is different. This branch, by nature of its special character and the difficulty involved, requires separate treatment. The difficulty lies in the unavoidable obstruction and the necessary deduction of the real from the apparent. What the eye sees in relation to the form, the size and movements of the earth, is not the reality, but the bridge leading to it. The only subjects which can be successfully treated in elementary schools are the earth's position in the solar system, its rotation and revolution and what depends on this, its relation to the moon and the network of lines on globes and maps for fixing time and place.

Who remembers winter care
In the shining days like these?
Oh, the merry lay of June!
All our hearts are glad in tune.

*THE STRONGEST TEACHER FOR THE WEAKEST PUPIL.

MISS EVELYN MITCHELL BUTLER.

It has been a question of some difficulty for me to decide what type to take as representative of the weakest pupil. Every class that enters my recitation room has its members who are drawn, seemingly by the law of gravitation, to the back seats. Yet, I hesitate to say, that the bright, mischievous boy on the back seat presents a harder problem than a certain honest, painstaking but very dull boy on the front row.

From my too bountiful supply of weak pupils, I have selected two who seem to me to represent the classes most frequently met. The first and the one who is heaviest on my heart is a good-natured country boy, who has been out of school working on the farm for the past two years. He is naturally slow and stupid, overgrown, sensitive and ignorant of *how* to study. "Why didn't you learn this little simple fact before coming to class and not wait for me to *drill* it into you?" I say sometimes. "I did learn it once but I forgot it." "Well, won't you know it to-morrow?" "I don't know, but I'm afraid not." And it is too likely to be the case that the next day he has forgotten, and if the *truth* were known, we are *both* ready to cry with discouragement. I wish that some one would, *could* lay down for me, hard and fast rules which the *strongest* teacher should use with this weak but striving pupil.

The only way to obtain any results from the division of students of which this boy is a superlative representative is to work with them conscientiously, teaching and re-teaching with patience. To be able to do this, requires that the teacher have a deep interest in, and sympathy for the pupil and, *too*, that the teacher keep a *buoyant* spirit. There are days when James forgets, but there are also days, glad days, when James *remembers* and woe to James if his teacher forget these latter days.

My second class of troublesome pupils is represented by a bright, active student, who lacks application, is non-receptive, and more anxious to give than to receive information. While this group of students is hard to deal with it has not so many discouraging elements.

*Read before the Southern Indiana Teachers' Association.

Strict discipline is especially necessary here and the ability to awaken interest in a specific line of work is an important requisite of the teacher. The ways to do this are so varied that time is wanting for examples of methods. A golden opportunity in this direction, often overlooked, lies in the assignment of the next day's lesson. If you will compare the recitations of two lessons, one of which has been assigned "from the top of page ten to the middle of page twelve and be sure you go over it all carefully;" and the other which has been assigned with the addition of a few words to show the pupil what the principal points are which he is expected to master and an air of conviction on the part of the teacher that there is something in hand both interesting and instructive, you will find a marked difference both in the preparation and in the manner of recitation of the two lessons.

The fundamental principle for creating interest in work is that the lesson to be taught shall have been so studied that to the teacher it is no longer a *cold lesson* to be heard, but a *thought*, a *message*, glowing with life; something which has become a part of the teacher's self and which he is anxious to make a quickening factor in the pupil's life. This enthusiasm need not, *should* not be evidenced by many words on the teacher's part. The enthusiastic teacher must needs remember that "the most beautiful recitation is that marked by his own questions." But though he speak seldom, the quick perception of a pupil knows at once when he is interested, when bored. This enthusiasm is simply the life force, the power which is *felt* without being *understood* by the pupil.

It seems to me that the method which the strongest teachers will employ is that of a well regulated promotion system. By this means the pupil is enabled to advance, according to his ability; an incentive equally beneficial to the strong and the weak is afforded. The strong pupil is not held back nor is the weak one pushed beyond his depths. A good teacher in dealing with poor students must needs be conscientious at this point. It is a temptation to let a poor student slip through to the next grade just to shift the responsibility to other shoulders. This laxness, from which probably most of us have suffered, cannot be too severely censured. It is, first of all, most unjust to the student, pushing him on into work for which he is not prepared and insuring his still further entanglement; an injustice has been done

to the class, by adding a weight to deter its advance; an injustice to the teacher who must take up a burden which, unlike the rolling stone, is continually increasing in weight if allowed to roll along; and last of all, the teacher has done himself and his reputation a most serious injury.

The question arises at this point, how long a pupil should be kept in the same grade. I should say that two years' trial is sufficient. If at the end of this time it is evident that the pupil cannot grasp the meaning of the work, it becomes the teacher's duty to advise him to stop and try something else. Here the teacher's interest in, and knowledge of his pupil is of especial advantage. It may be and often is the case that a dull student has a particular bent and even talent in some one line. If this tendency is discovered and trained, the pupil is saved. We have a good example of this in the case of Leland Stanford, Jr. He was by no means a bright boy in the class-room and was a discouragement to his teachers. One interested him in the story of the formation of a stone and thus developed in him the latent love for natural science. A method more frequently used, perhaps, with an unprogressive student is that of conditioning him into the next higher grade for the sake of giving encouragement. It is sometimes the case that in this way the pupil is aroused to harder work by the incentive thus afforded and is able to go on.

The qualities, then, which it seems to me are most necessary to make the strongest teacher for weak pupils are ability to preserve order, to command attention and to awaken interest; patience and hopefulness; conscientiousness in dealing with individual pupils; and a live interest in the *pupil* and in the *work*.

The New York World asks editorially, "Who is the 'dull boy'?" and answers: "To the Greek professor he is the boy who cannot learn Greek. To the professor of mathematics he is the boy who cannot learn calculus. To the whole literary or classical faculty he is the poor fool whose brain will only absorb facts of physics and chemistry. To the witty man he is that awful creature who sits solemn over the latest joke or epigram. To the serious man he is the laughing jackass who persists in treating life as a comedy.

"In brief, the 'dull boy' is the square peg whom somebody is trying to fit into a round hole."

THE LOST MAINE.

O. L. VANCE.

Fair was the day, when through the spray,
Last sailed the gallant Maine ;
She feared not waves nor ocean's caves,
And billows lashed in vain.

Each passing knot with distance fraught,
But added to her woe :
But still she sails amid the gales,
And never dreamed it so.

On land or main 'tis just the same,
Our greatest sorrows hide,
Within a reef of treacherous grief,
Beneath a silent tide.

With vain deceits grim Judas meets,
Upon the open sea,
The queen of peace from war's release,
And tows her into lee.

Nor did the sense of honor fence,
The deed he'd pondered well ;
He led our queen with hate unseen,
Into the jaws of hell.

What nation's pride and strength can hide
Revenge for such deceit ;
What man so frail that would not hail
The chance, such foes to meet ?

What warrior proud with strength endowed,
Can sit with idle hand,
While slimy foes heap blackest woes
Upon his native land ?

Alas ! our queen in shroud unseen,
Lies buried in the deep :
But shall we stand with passive hand,
And o'er her sorrows weep ?

Or shall we fling aloof the string,
That marks the coward's brow ;
And bid our foes to heal our woes,
As at our altars bow.

May fate at length with tranquil strength
Dispel the warlike sounds
That meet our ears with ardent cheers,
And heal the nation's wounds.

WHY SHOULD THEY BE IDLE?

FRANCES BELL MARSHALL.

"What to do with boys and girls during the summer months is a question of importance," says Superintendent W. H. Sanders in an article in the January issue of *The Northwestern Monthly*.

I am very glad he has raised this question for it seems to me that it is one of *vital* importance and one that needs earnest thought from our teachers and educators throughout the land. Superintendent Sanders has forcibly pointed out that one twelfth of the children of a small city of 2,500 population are crying out against forced idleness during the summer vacation. This is not as it should be. Something must be done to keep the children from forming lazy, indifferent habits, as a result of this idleness, if we would have them return to school in the fall with a growing desire to go on with their work and grow up into industrious, helpful men and women.

"The parents should be awake to the importance of this question," but how shall they be aroused if not through the teacher's effort? Then the sad fact remains that there are those parents who are careless about the welfare of their children and will do very little to help the child's growth morally, or in any other way. But I believe that if the parents who require no work of their children can be persuaded to employ them a part of each day in some helpful home task that it will be a saving grace to the child. "All work and no play makes Jack a dull boy." Then what of "all play and no work?"

I well remember the deplorable case of a bright-eyed, wide-awake, pure-minded boy who was among my most industrious pupils one year. The fall term Freddie returned with a rude

and indifferent manner, a polluted vocabulary and lowered morals. The change in the boy was very marked.

I tried to ascertain the cause of his deterioration which was not far to seek. I easily found by questioning his parents that he had spent his vacation in idleness and naturally sought play-mates among boys who were as idle as himself.

Satan ever finds something for idle hands and brains to do, I thought, and I began at once to try and undo the great mischief. But it was not an easy problem, and I often think with deep regret of how many noble-minded Freddie's there are who lose the good obtained in school, through the lack of employment and the unguarded freedom of the summer months. Alas, that they should come back to us with lowered standards of right and *less* manliness where there should be *more*!

It is with the earnest hope that some practical discussion may be aroused that I hastily set forth the following incomplete scheme for action during the summer.

At the close of school determine those of your pupils who have no home duties and are troubled with "nothing to do." This can easily be ascertained by requiring answers to questions similar to these: What do you expect to do this summer? In what ways do you help father and mother! Are you glad vacation is coming? (With reasons.) Then meet the pupils troubled with *idleness*, old and young, and form a Bright Eyes' Club or Look About Society. Enlist the older ones to aid and give instruction to the younger ones. It will not be difficult to arouse their enthusiasm. All children are lovers of Nature, and school closes just at the grandest period of Mother Nature's evolution. She will give them abundant material for thought and study if rightly approached. My chief object aside from occupying their time profitably, would be to keep them in touch with Nature.

Of course a leader must be had. If the superintendent is too busy to give his personal attention, he could surely find some one who would sacrifice part of his or her time to this missionary work. It is so much easier to keep a child in the right path than to lead them back after he has once strayed away. Enlist the resident instructors and Sunday school teachers in the good cause.

Now, divide the children into sections, if there are too many for one leader, and see that each is provided with note book and pencil. Have a central place of meeting and arrange walks into

the country, varied by visits to such manufacturing establishments as the city or vicinity affords. On these excursions note all points of interest and have each child make a special note of what interests him most, and keep his interest by helping and guiding him to learn more for himself. Have him write some brief account of what he does and what he sees the remaining days of the week.

Many children throw aside books as soon as school is closed and do not open them until the beginning of school. Therefore, a certain amount of reading should be asked of the members of the Bright Eyes' Club.

Splendid books for this purpose are the series of Sea-Side and Wayside Nature Readers, Nature Myths and others well known.

The school library should be made easy of access. At least two days during the week let the library be open. Boys and girls can accomplish much desired general reading if given the opportunity and thus spend their spare time to advantage.

But do not for a moment have the children think that this is school work and that they are forced to do it. That would spoil everything. And it is not school work—it is Nature work as it ought to be studied—face to face. "Hand in hand with her he walks." Have each child feel personally that:

"Nature, the dear old nurse;
Took the child upon her knee,
Saying: 'Here is a story-book
Thy Father has written for thee.'"

Rensselaer, Ind.

I PLUCK an acorn from the greensward, and hold it to my ear; and this is what it says to me: "By and by the birds will come and nest in me. By and by I will furnish shade for the cattle. By and by I will provide warmth for the home in the pleasant fire. By and by I will be shelter from the storm to those who have gone under the roof. By and by I will be the strong ribs of the great vessel, and the tempest will beat against me in vain while I carry men across the Atlantic."

"O foolish little acorn, wilt thou be all this?"

And the acorn answers, "Yes, God and I."

—*Layman Abbott, D. D.*

WRITING—SLANT OR VERTICAL?

Mr. W. A. Bell, Editor Indiana School Journal:

DEAR SIR—In your interesting monthly for April, Mr. W. S. Hiser, in his article "Should Writing Slant," says that New York and Brooklyn schools use vertical copy books. This statement is very misleading. Vertical writing was introduced into a few schools where the teachers were unsuccessful in teaching slant writing. Strange to say, they are still unsuccessful, though in a greater degree.

Our teachers are beginning to realize that there is a great difference between the daily distribution of copy books into which from four to six lines are laboriously scrawled, and the teaching of a legible, easy, fluent, graceful and rapid hand that is adapted to the requirements of modern commercial activity.

A few years ago a desperate effort was made to create a demand among teachers for Vertical copy books. Persons interested (in a financial way, no doubt,) secured the services of a well known educator connected with the University of New York, to make addresses against the slant systems of writing. This eminent gentleman publicly admitted that he was not a teacher of writing and moreover that he could not write in the proper sense, and yet he had the audacity to tell 1,500 intelligent Brooklyn teachers that the slant of the writing in general use caused curvature of the spine and myopia; just why he did not add dyspepsia, appendicitis, small-pox and the mumps is a mystery. In my experience I have seen a few cross eyed pupils, and were I to say that I believed the affliction was due to the fact that the axis of the earth is inclined to the plane of the ecliptic, you would write me down a dunce. There is less sense in attributing myopia to the practice of the slant system of writing. In the future should you meet a pupil with eyes so crossed that the tears run down his back when he cries, just remember that in 1898, the end of the enlightened nineteenth century, a professor of the University of the great State of New York, publicly told 1500 intelligent teachers that persistency in the practice of slant writing was one of the causes of myopia and curvature of the spine.

Yours truly,

Boys' High School, Brooklyn, N. Y.

HOWARD KEELER.

THE SCHOOL-ROOM.

ANALYSIS OF A READING LESSON.

EFFA L. HORN.

In the following simple analysis of Whittier's poem, "The Robin," those who are familiar with the work of Dr. Arnold Tompkins and Dr. Hinsdale will see that the writer has attempted to outline the work according to the plan presented by two educators who have done so much to inspire the teacher of reading.

*THE ROBIN.

My old Welsh neighbor over the way,
Crept slowly out in the sun of spring,
Pushed from her ears the locks of gray,
And listened to hear the robin sing.

Her grandson, playing at marbles, stopped,
And cruel in sport as boys will be,
Tossed a stone at the bird, who hopped
From bough to bough in the apple tree.

"Nay!" said the grandmother, "have you not heard,
My poor, bad boy! of the fiery pit.
And how, drop by drop, this merciful bird
Carries the water that quenches it?"

"He brings cool dew in his little bill,
And lets it fall on the souls of sin;
You can see the mark on his red breast still,
Of fires that scorch as he drops it in.

"My poor Bron rhuddyn! my heart-burned bird,
Singing so sweetly from limb to limb,
Very dear to the heart of our Lord
Is he who pities the lost like him!"

"Amen!" I said to the beautiful myth;
"Sing, bird of God, in my heart as well;
Each good thought is a drop wherewith
To cool and lessen the fires of hell.

"Prayers of love like raindrops fall,
Tears of pity are cooling dew,
And dear to the heart of our Lord are all
Who suffer like him in the good they do!"

* Permission to use this poem has been kindly granted by Houghton, Mifflin & Co.

I.—PURPOSE.

There is no good reason why children in the grammar grades may not be taught to seek for the author's aim, especially if the selection is simple and not too abstract; yet, many teachers feel that such study does not belong to grammar grade work. Such a habit, early formed, will lead to greater facility in the study of literature, as such, when pursued in the high school or college.

Dr. Tompkins suggests this question to be put to the child in determining the author's purpose, "Did it *teach* you something, cause you *to enjoy* something, or stimulate you *to do* something?" Answers will differ according to the ability of the children, but by judicious questioning the teacher must lead the child to see that the poet would stimulate him *to do* something as the robin did in relieving suffering.

In discovering the purpose of the poet in writing such a poem, the child has unconsciously established between himself and the author the strongest bond of sympathy and the keenest appreciation of his work.

II.—THEME.

In studying the theme, Dr. Tompkins offers a helpful question, viz.: "Note down all the objects which the writer presents, and draw a line under one which includes all the others." In order to do this the child must discriminate between important objects or thoughts and minor objects or thoughts. In other words, he must find the pivotal thought and group the others around it:

Classifying the thoughts in "The Robin," we have in the first stanza, the old neighbor's desire to hear the robin sing. Second stanza, cruelty of the boy. Third, fourth and fifth stanzas, the myth related by the grandmother portraying the self-sacrifice of the robin. Sixth and seventh stanzas, the soliloquy of the poet in which he emphasizes the beauty and truth in the myth, the nearness to the Lord of those who pity suffering and sin.

a. The statement then, of the theme is simple enough, *i. e.*, self-sacrifice as portrayed in the third, fourth and fifth stanzas.

b. The principle involved is that of *vicarious suffering*. The theme deals with universal life and ideal life, and may be directed to the child's experience.

Any selection which does not deal with either universal or ideal life, or both, is not a true work of literature.

c. A statement of the embodiment of the thought.

The robin is the type.

"The souls of sin" represent all sorrow, sin or suffering.

The scorched breast of the robin is the result of the sacrifice which he makes. This in turn becomes the robin's mark of beauty.

The "drops of dew" are the type of any words or deeds which tend to lessen sorrow.

III.—EXPRESSION.

The work under this third and last head belongs properly to the study of rhetoric and literature, though the teacher of reading in the grammar grades should lose no opportunity to impress upon the mind of the child the *clearness, conciseness and beauty* of expression of the selection.

Every teacher recognizes the value of careful questioning in the reading lesson. A few questions which may be used or may be merely suggestive of others are here presented.

Why does the poet call his neighbor, Welch? Where is Wales?

What does the word "crept" make you think about this old lady?

Why does she "push from her ears the locks of gray?"

Explain the line, "cruel in sport as boys will be."

Is the harm to the robin any less, because the stone is thrown in sport?

Why does the grandmother call her grandson, "my *poor*, bad boy?"

Tell the story of the robin as related by the grandmother.

Why does she tell this story?

What is the meaning of the expression, "Bron rhuddyn," and why is it used by the old lady?

Explain the word, "Amen," as used in the sixth stanza.

What is the myth in the poem?

To what does the poet compare—"Each good thought," "Prayers of love," "Tears of pity?"

To whom does Him refer in the last line of stanza five?

What feeling do you have for the robin?

In what way may we be like the robin?

Which is the greater act of kindness—one in which we give up something to help others, or one in which such a sacrifice is not made?

Lafayette, Ind.

A HANDY TABLE.

On the wall facing my first class—boys of standards (grades) V to VII—hangs a large sheet of drawing-paper. On this sheet, in bold figures, I have written the following table of equivalent fractions (common and decimal) and percentages. It has, for several years, proved very handy.

| COMMON FRACTION. | DECIMAL FRACTION. | PERCENTAGE. |
|------------------|-------------------|-------------|
| $\frac{1}{2}$ | .5 | 50 |
| $\frac{1}{4}$ | .25 | 25 |
| $\frac{3}{4}$ | .75 | 75 |
| $\frac{1}{8}$ | .125 | 12½ |
| $\frac{3}{8}$ | .375 | 37½ |
| $\frac{5}{8}$ | .625 | 62½ |
| $\frac{7}{8}$ | .875 | 87½ |
| $\frac{1}{16}$ | .0625 | 6¼ |
| $\frac{1}{3}$ | .3 | 33⅓ |
| $\frac{2}{3}$ | .6 | 66⅔ |
| $\frac{1}{6}$ | .16 | 16⅔ |
| $\frac{1}{5}$ | .1 | 11½ |
| $\frac{1}{10}$ | .083 | 8⅓ |
| $\frac{1}{5}$ | .2 | 20 |
| $\frac{1}{10}$ | .1 | 10 |
| $\frac{1}{20}$ | .05 | 5 |

—*Teachers' Aid.*

INDIAN CORN: A WONDER LESSON.

J. P. MCCASKEY.

Do you want a subject for a wonder lesson? You are embarrassed by riches. They are here on every hand by tens of thousands. Almost anything will do. I know nothing more common or more striking than the Indian corn, growing in our gardens and in the fields everywhere about us, one of the most widely known and most useful grains in the world. What a wonder story you can tell of this marvelous plant! "First the blade, then the ear, then the full corn in the ear." When, as a child,

I used to read these familiar words in the Bible, I always thought it meant our yellow corn planted in the springtime and gathered to the crib in the autumn. Years later I was surprised to learn that this "corn" was a kind of wheat or barley, and that all the wealth of Jerusalem could not in those days have bought an ear of our common corn.

There is a story told of a selfish farmer who had got a new variety of Indian corn, and to a neighbor who wanted to buy a little of it, he replied: "Not a grain." In his ignorance he thought he could keep it all on his own farm. He did not know of stamen and pistil, pollen and ovary—perhaps only of horses and hogs and dollars; knowledge very good to have if a small fraction of a large unit, but if it be all a man has, then of little value in the great account. His neighbor, more knowing than he, taught him a lesson in botany, and had the corn both without buying it, without his consent, and without risk of a lawsuit. The new corn happened to be planted along the line fence between the farms. The neighbor, seeing this, selected the best grains from the middle of some of his best ears for seed, and planted them on the other side of the fence. The land was equally good; the rains fell and sun shone alike on each field. The corn grew and flourished and neared the time when the staminate blossoms of the tassel would shed their pollen upon the silken bloom below. He noted the right moment, and then cut the plume (the tassel Gray calls it) from every stock of his own corn, so that no pollen from his own field should fertilize his corn—it must all come from the other side of the fence. The new corn was rich in pollen which floated on the air and fell here and there with little regard to line fences. The life forces went on working out their results in the laboratory of nature, and, when the husking time came, both hauled to their barns nearly the same kind of corn—much to the chagrin and somewhat to the edification of the stingy farmer.

The lesson of the pollen is in this story, and a deeper lesson yet for the growing boy and girl. It is good teaching. If you can give many lessons like this, you are a teacher good to live with. I went to school on the Duke Street hill, nearly fifty years ago, to a man who taught many such lessons. Was he good to live with in those far off days?

But we want to look at the corn. A green stalk may be brought to the school, roots and all. Take the circuit from the

seed dropped into the ground in the late spring to the seed from the ear in the fall. The green shoot comes up; the leaves of the beautiful, vigorous thing are rapidly developed—in the warm June days after a rain how they grow!—then the rustling two edged sword-blades of July; the light yellow plume of staminate blossoms, whose pollen is grains of pearl under the microscope; and the floss silk of the pistillate flower, (the ear) pink in color, soft in texture, with its broad, close-fitting sheath (the husk) for protection to the ovary.

This long silken tassel is for use much more than for beauty, though it is very beautiful. We go to market and buy our dozen ears of corn, husk them and strip down their soft and glossy threads of silk without a thought of Almighty design. Look closer! Remove your husk carefully, so that no thread of silk is disturbed. Start with the grain farthest from the silken tassel, take the next, the next, the next, each has its own thread in orderly succession, and it stands at one end of that thread—where is the other end? Outside of the sheath, each thread ending in its stigma, a wonderful structure, hundreds of them together making up the soft, rich silken tassel, swaying in the breeze and kissed by the sunlight, waiting for the touch of the new life and energy that must come from above. The pollen boxes burst, and shed abroad their treasure of pearls—for the shape is pearl—I have never seen any pollens truer pearls than those of some varieties of the corn. As the fine shower falls through this warm summer air, these waiting stigmas grasp it eagerly, gather of it abundantly, and through the long style (the thread of silk) connecting the light and life without with the embryo seed within, the vitalizing influence passes—how no man can tell—until every ovule is fertilized, and develops in God's good way into a seed that can be sown the next season to repeat the old tale of marvel as from the beginning, another link in a chain of apparently endless succession.

And you and I and the farmer may be as little interested in this marvel, as ignorant of it and as blind to it, as are the horses and the cattle or the trees and the stones. Let us get this thought clearly into our own minds and then preach this great gospel of wonder to our children. But if you cannot feel it you will not do much with it. Go away and pray God to give you the seeing eye, the hearing ear, the feeling heart. Alas! for our

children when the only things we can teach them are a little ciphering, which we call arithmetic; the cast-iron order of letters in words which we call spelling; some sounding of words from the printed page, which we call reading; a little geography and history, most of which is soon forgotten, some rules in grammar that we ourselves too often violate and hear others violate almost without thought or silent protest.—*Wisconsin Journal of Education*.

PRIMARY DEPARTMENT.

PRIMARY ARITHMETIC.—III.

ANNA BROCHHAUSEN, CRITIC TEACHER, INDIANAPOLIS.

Definite relations of magnitude are to be established by means of surfaces and lines as well as solids. It is unnecessary to discuss here why the solid furnishes the best beginning. The reasons are self-evident.

Since the previous papers dealt mainly with the theory underlying this primary arithmetic, the present article aims chiefly to give helpful suggestions in carrying out this advanced phase of the work.

I.—LESSON ON RELATION OF SURFACES.

All the blocks are on the table.

Teacher—We have found that certain relations exist between these solids. Let us see if the same relations are true of the surfaces. Show me what is meant by the surface of any block on the table.

A child does it.

Teacher—Do the relations exist between the surfaces?—Show such surfaces as you think are equal.

Two or three pupils step before the class with blocks and say: "The surfaces of these two blocks are equal."

T.—Prove it.

The children place the respective faces together, showing that they are exactly alike.

T.—Then do the relations exist between surfaces?

Class—Yes, ma'am.

T.—If in entire surfaces, do they exist between parts of sur-

faces? Show me a part of this surface. What do you call that part? (Face.) Do the relations exist between faces? Show two faces which bear any relation to each other that you can see.

But I do not wish to have the solid every time when I speak of the relations between surfaces? How can I represent a surface?

Child—Make a picture of it.

T.—Do so.

T.—What has she done?

C.—She drew it.

Then we can show these relations —?

C.—By drawing.

There is still another way in which we can represent the surface. (No answer.) Look at the rectangle which she has drawn. Tell me about it.

C.—It is longer than it is wide.

T.—So it has —? (Points.)

C.—Length and width.

T.—We measure, or find the size of a surface by its length and width. Length and width are the dimensions (flash method) of a surface. How many and what dimensions has a surface?

C.—A surface has two dimensions, length and width.

T.—How many dimensions has a solid?

C.—(Pointing as he speaks.) A solid has three dimensions, length, width and thickness.

Now can you think of something which will represent a surface, which has length and width, but very little thickness?

C.—Writing paper.

T.—Yes, or just —?

C.—Paper

T.—In what way can I show the relations with paper?

C.—By cutting and folding.

(The above is as nearly as possible an exact report of the lesson as given.)

The study time followed the lesson. Blocks 1, 2, 3, 4, 5, 6 were placed in front of the class. The children cut the relations. Accuracy is the chief aim in this work.

Recitations follow in which the children make an accurate study of the ruler; cutting one out of paper exactly like their own and marking the inches on it. From this paper ruler which

yields to their will, they learn $\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{4}$, $\frac{1}{6}$, $\frac{1}{12}$, $\frac{2}{3}$, $\frac{3}{4}$, etc., of a foot. Connected with this exercise are such problems as: A little girl's hair ribbon is $1\frac{1}{4}$ feet long. How many inches long is it? When Henry measured our plant this morning he found that it is $\frac{2}{3}$ of a foot high. How many inches high is it? I made a pen-wiper the shape of an equilateral triangle. Each side is $\frac{1}{3}$ of a foot in length. How much ribbon will I need to go around it?

A great deal of practice at the board is necessary. The children should gain the power of drawing, free hand, an 8 inch square, or a rectangle 3×5 inches. Such problems are given as: A little girl fringes the two ends of her doll's towel. The towel is 3×5 inches. How many inches of fringe are there? What part of a foot is that? How many square feet in a rug 3 feet wide by 5 feet long? How many miles of fencing will be needed to fence in a field 5 miles long by 3 miles wide? "By exercising ourselves upon things which lie within the range of sense, we obtain the means of discovering the relation of things which lie beyond."

Some recitations should also be given from rectangles on the board; e. g. have rectangles; 4×4 , 8×8 , 2×4 , 1×2 , 1×4 , 2×4 , 2×4 , 16×1 , 12×8 , 4×8 , 16×16 , 12×16 , arranged vertically, horizontally and obliquely. Use letters to designate the rectangles. Give the relation of C (rectangle 4×4) to each of the others.

A recitation giving the dimensions of the rectangles is valuable. The relation of a four inch square to an eight inch square, of a four inch square to a sixteen inch square, of an eight inch square to a sixteen inch square, etc., should be brought out in this lesson.

Each child is supplied with an envelope of rectangles, the dimensions of which are; 1×1 , 2, 3, 4, 5, 6; 2×2 , 3, 4, 5, 6; 3×3 , 4, 5, 6; 4×4 , 5, 6; 5×5 , 6; 6×6 . Similar work as the above may be given at the seats some day. Or, choosing only the relations 1, 2, 3, 4, 5, 6; calling the smallest unit one-half; give problems like the following: How many people can you serve with a quart of berries, when you give one-half of a pint to each person? When one man does a piece of work in three days, how long will it take six men of equal strength and skill to do the same piece of work?

Similar questions as these can be given the children for study, but as yet they should not be forced to give the complete analysis

in writing. "If facts are presented in their proper connection as stimulating and directing the primary mental activities, the child is slowly but surely feeling his way towards a conscious recognition of the nature of the process. This unconscious growth towards a reflective grasp of number relations is seriously retarded by untimely analysis—untimely because it appeals to a power of reflection which is as yet undeveloped." (McLellan & Dewey's Psychology of Number.) In recitation, the teacher may begin to question for the underlying process. Independent work in this analysis ought not to be expected until near the beginning of the third year.

Now that this point in the work is reached, the question, what can the children do during the study time, is answered. Indeed, it changes its form to; How can they get it all done? Every thought of the recitations is applied in the study time to test the children's independent power. Drawing and cutting are absolutely necessary to gain the accuracy desired.

Space will not permit a further discussion of the work on surfaces, since suggestions in the work on lines are also desired.

II.—Lesson in the relation of lines. Material:—All the blocks.

T.—We have seen that the relations which exist between solids also exists between—?

C.—Surfaces and faces.

T.—What else has this block besides faces?

C.—(Points as he speaks.) This block has edges and corners besides faces?

T.—Our lesson this morning—?

C.—Our lesson this morning will be to give the relation between edges and corners.

T.—Not quite right.

C.—We will give the relation between edges.

T.—Why not corners?

C.—They are all alike.

T.—Can you see some relation between any two edges?

Two or three pupils give relations.

T.—We spoke not only of the relations between surfaces—?

C.—We also gave the dimensions.

T.—Give the dimensions of this solid. (Teacher points along the edges which show the dimensions of the solid while a child recites.)

T.—Give the dimensions of some of the solids. The children choose a block and as each in turn gives the dimensions of his block, he moves his finger along the edge of which he is speaking.

T.—How can I represent the edge when I do not wish to use the solid?

C.—By drawing.

C.—By cutting thread or string. Lines from one to eighteen inches in length were on the board. The class now turned to these giving the length of each and the relation of one to the other.

The children now practice drawing lines of certain lengths. The study of the yard measure is begun, including first the building of the yard by laying the foot rulers on top of it.

In this lesson ask such questions as ; How many foot rulers does it take to build the yard stick? Into how many equal parts does that divide a yard? What is one of three equal parts called? Show me one-third of a yard. Another third. Another third. Give me another name for that which you hold in your hand besides calling it one-third of a yard. What then is one-third of a yard? Take two foot rulers. What part of a yard have you taken? If you divide a yard of string equally among three boys, what is each one's share? What part of the yard do two of the boys receive? How many feet is that? etc.

Besides this, they have the drawing of the yard, one-half yard, two-thirds of a yard, at the board as well as giving the relations of each to each. As hand work in study time, the drawing of lines in certain relations, or the cutting of string, is in order.

In all future work every new relation taught should be brought out in the solid, the surface and the line.

The teacher will be surprised to find how much facility the child has gained in handling numbers. Up to this time, it is probably not advisable to have much drill for the sake of ease and accuracy. Psychologically the child must first know number as attached to magnitude. Near the end of the second year is early enough to lead him to deal with simple numbers, *i. e.*, number not as a measuring value of some kind.

“Then let us, one and all, be contented with our lot ;
The June is here this morning, and the sun is shining hot.”—*Riley.*

SOME GEOGRAPHICAL DIVERSIONS.

MISS LEE MCCREA.

Children usually enjoy the study of geography at first, but as the weeks go by and each lesson seems so much like that of yesterday,—when there comes the memorizing of boundaries, areas, products, and so on,—then the interest flags perceptibly.

Here are some schemes that have aroused enthusiasm for me, and may be helpful to others.

After one of the dry lessons of map question, I told the class to open their books and find ——, naming a somewhat obscure town. As soon as it was found, the hands were put up quickly one after another, no one being allowed to point, or help his neighbor in the least.

When about half the hands were up, the one who first found it, was called on to locate the place, and then give another word to be hunted.

It was play to them, and became a great incentive to good lessons—which was the price required by the teacher.

By and by, when some proved slower than their classmates, and seldom could be first, we took turns in giving out the “hard things,” as they were called. If a name could not be found,—as was frequently the case,—it was left over for the next day.

The enthusiasm grew until mothers and fathers, beneath the night lamps, were pressed into service, and the children knew the maps so thoroughly that their hands would fly up before a name was fairly uttered.

In hunting for obscure words, every word on the map was read, and thus, through play, the object was attained—the whole was fastened in the memory.

A drill that will test the memory and cultivate attention was modeled after the old fashioned spelling match. The teacher appointed captains who “chose up” in the old way and lined up their forces; then one of their leaders was told to pronounce any geographical word. She gave “Baltimore.”

“E,” called the teacher to the opposite side.

“Europe,” was the quick reply.

“E,” the final letter was given back to side number one.

“Elkhart,” was the answer, which of course demanded a word beginning with “T” from the opponents.

So on, back and forth, the teacher allowing any proper geographical name and giving half a minute's thought before passing the letter on, one "miss" requiring the pupil to take his seat as in spelling. No name could be repeated, and it grew exciting as the lines thinned out, and the common words had all been given.

After the contest, the pupils studied vocabularies in the back of the book, to get ready for another trial, especially committing the A's (surprisingly many of our names begin and end with that letter, and it had proved their downfall before) and words ending with Z, in order to trip their opponents.

The spelling of geographical names has proved so difficult a matter that I fear it is frequently omitted by careless teachers, although a necessary part of a child's knowledge.

Let a regular list be assigned each day as a part of the lesson—not a long list, especially if difficult for the grade.

This very soon becomes "a weariness to the flesh" for few children take kindly to spelling, and a pleasant variation in a small class may be what I call rotary spelling.

The class arose, and I pronounced such a word as Venezuela. The first pupil said, "Capital V," the next, "e," the next, "n," and so on, the one finishing the word, pronouncing it. Then another was tried. A wrong letter required a pupil to drop out and the circle grew excitingly small.

The chief benefit of this aside from the spelling, is the quickness and perfect attention necessary.

If map drawing upon the board is taught, suppose it be frequently done in sections. Let each child draw the outline of his given state, then move on and put the rivers in his neighbor's map; another simultaneous move and the mountains are drawn, then the cities are located. When they pass back to their seats, criticisms are called for, and the one who has little skill in drawing is not made to feel hopelessly disgraced by a map wholly his own, on which he put his very best efforts, but which becomes the laughing-stock of the room.

The tracing of rivers was a drill that was much enjoyed for a change.

For instance, with all books closed, the teacher began: "My river rises in the Rocky Mountains in Colorado, flows in a southeasterly direction through Kansas, Oklahoma, Indian Territory, and Arkansas, and empties into the Mississippi."

The first one to say "Arkansas" was allowed to trace another.

The scope of the work depends on the advancement of the class, of course, but it is more interesting when the rivers of the world may be given.

The bounding of states in the same way is a good exercise for beginners, and they will gleefully "write boundaries" on the board for one another "to guess."

When a class is proficient and near the end of their work, a pleasant recitation either upon paper or the black-board is what may be termed a geographical essay. Each, on drawing a slip of paper on which is written the name of some state or country, proceeds to write all he knows on the subject, placing for a heading as perfect a drawing of it as he can make from memory.

Surely all teachers in these latter days believe in the virtue of enthusiasm, and by means of such small devices as these new interest may be infused into the little, weary minds.

Of course nothing can take the place of routine work, and no variation must be overdone, or allowed too often.

Keep them *as variations*, change them to suit your grade, add to them from your own busy brain, remembering that *any* thing that promotes interest, attention, and alertness, that drills the memory and adds to a child's knowledge of the subject, is legitimate teaching.

Happy faces in the recitations will be only one of your rewards.
Indianapolis.

A PEEP INTO ONE SCHOOL-ROOM.

ALICE A. FLAGG.

An April day in New Orleans; a sky of deepest blue, a few lacy clouds floating up from the Gulf; wisteria, chinaberry, rose and countless other plants shedding perfume on the air; mocking-bird and red-bird seemingly crazy with joy; a large school-room with windows many, open and low enough to invite the attention to the loveliness beyond; fifty bright-eyed, wide-awake, active boys and girls, ranging in age from nine to fifteen. The written arithmetic papers are finished and collected. I glance through them hastily, while the children watch for my expression as I do so, reading therefrom approval of the neatly arranged papers.

The fragrance and song float in at the window, and fifty waiting children turn their faces that way as a flower to the sun. Do I reprove it? Do I put on a stern countenance and demand that they turn away, once and forever from the things outside the school-room? Do I give them a lecture on the desirability of giving their attention to a lesson on bones, or the circulation of the blood, and give no heed to the beautiful Spring that came forth from a long, rainy season?

Not I. Not hearing the customary direction from my desk, they turn again to find the reason and to meet a smile of kindness as I say, "Class in position." How quickly position is taken—faces to the front, shoulders straight, hands clasped on the desk before them (rested). Now how did those children read my thoughts? (There is expectancy on every face.) Why just as I read theirs, because we understand each other—a mental telepathy, without which no teacher can afford to be; it saves so much *talk* and *fuss*, the bane of the school-room.

"Jessie Miller may go out and get china-berry leaves for the class." A little stir of approval and close attention while I fill the time of Jessie's absence with some general questions about the tree. Jessie returns and gives each child a leaf and spray of blossoms from her basket. They are quickly appropriated and closely examined, and now the questions and answers follow quickly until I say, "Arrange your leaf and flowers upon your desk," Each child obeys quickly. "Take tablet and pencil." Tablets and pencils come forth promptly. "In the upper portion of the sheet before you, draw the outlines of your leaf and blossoms." All fall to work with alacrity, only glancing up now and then with a happy look, as though to thank me for understanding them. A brief description, as remembered from our questions and answers, follows the sketch and though in my examination, I find some of them a little crude, the main points which I wished to teach are *down* and will not be forgotten, while the children have added another thread to the cable of habit in spontaneity, quick obedience and happy industry.—*Popular Educator*.

"For the world is full of roses and the roses full of dew,
And the dew is full of heavenly love that drips for me and you."
—James Whitcomb Riley.

LEND A HAND.

(This department is conducted by Mrs. E. E. Olcott.)

*"Look up and not down,
Look forward and not back,
Look out and not in;
Lend a hand."*

AUDUBON.

Since Audubon societies are flourishing and multiplying throughout the United States, and are making their influence felt even in the legislative halls of the nation, it awakens a desire to know more of the great ornithologist whose name is a synonym for bird-lover. The story of his life is very interesting and appeals to the love of adventure in youthful hearts.

John Audubon, our naturalist's grandfather, was a French fisherman. He had twenty-one children. Our Audubon's father was the twentieth child, and when only twelve years old he left home to make his own way in the world. He began as a common sailor before the mast, and rose to be an officer in the French navy. He also fought in the American Revolution under La Fayette and was a personal friend of Washington. He became wealthy, owning much land in the United States and in San Domingo. In Louisiana he married a beautiful Spanish Creole. Tradition says that his youngest son, John James, was born in the quaint old village of Mandeville on Lake Pontchartrain not far from New Orleans. A certain house is even pointed out as the one which first sheltered him but, surprising as it may seem, the *exact* date and place of his birth are neither of them certainly known. He was born near New Orleans, possibly in that city and his grand-daughter says the date may be any where between 1772 and 1783. Most biographers give it as 1780.

While he was still young, the family visited the Audubon estates in San Domingo, and there his mother was killed in a negro insurrection. His father and the children escaped to New Orleans, and soon afterward went to France where his father married again and made his home at Nantes.

Young Audubon's stepmother loved him devotedly and indulged and praised him most unwisely. She gratified his every whim, furnished him with unlimited pocket money, and called him "the handsomest boy in France." Her training made him

extravagant, vain and thoughtless and cost him many bitter experiences in after life. As a school boy he did as he pleased, and he did not please to attend school regularly. He candidly says of his early life: "My father being mostly absent on duty, my mother suffered me to do much as I pleased. It was, therefore, not to be wondered at that instead of applying myself closely to my studies, I preferred associating with boys of my own age and disposition, who were more fond of going in search of birds' nests, fishing or shooting, than of better studies. Thus, almost every day, instead of going to school when I ought to have gone, I usually made for the fields, where I spent the day. My little basket went with me, filled with good eatables and when I went home during early winter or summer, it was replenished with what I called curiosities, such as birds' nests, lichens, flowers of all sorts, and even pebbles gathered along some rivulet.

"The first time my father returned from sea after this, my room exhibited quite a show, and on entering it he was so pleased to see my various collections that he complimented me on my taste for such things, but when he inquired what else I had done and I, like a culprit, hung my head, he left me without saying another word. Dinner over, he asked my sister for some music, and, on her playing for him, he was so pleased with her improvement that he presented her with a beautiful book. I was next asked to play on my violin, but alas! for nearly a month I had not touched it; it was stringless. Not a word was said on the subject. 'Had I any drawings to show?' Only a few and those not good. My father looked at his wife, kissed my sister, and, humming a tune, left the room. The next morning at dawn of day my father and I were under way in a private carriage, my trunk, etc., were fastened to it, my violin case was under my feet, the postillion was ordered to proceed, my father took a book from his pocket, and while he silently read, I was left entirely to my own thoughts."

Young Audubon's thoughts were gloomy enough, but he was greatly relieved to find that he was only to be placed in school. His father was greatly mortified at the boy's ignorance and resolved to place him under more strict discipline, that he might become well educated. He wished his son to become an engineer or a naval cadet and, therefore, arranged for special instruction in mathematics and drawing. Mathematics was irk-

some and young Audubon made little progress. But he entered heartily into drawing because it enabled him to portray his beloved birds more faithfully. His teachers had reason to complain that he drew birds instead of the lessons assigned. He studied for seven years under the best drawing masters in France. He enjoyed the lessons in dancing, fencing and music ; he became proficient on the violin, little dreaming of the time when he would turn dancing master to earn money to carry on his cherished life work. Through all, his love of nature controlled him ; he still slipped away from studies to ramble in field and wood, " taking the keenest delight in the examination of nests, eggs, young, and parents of any species of bird." His very earliest memories were of lying under fragrant trees in his Louisiana home, listening to the marvelous notes of the mocking-bird and watching its movements. While a mere child, he drew pictures of his feathered friends and his love for nature was so intense that he says it " bordered on frenzy."

His brothers were in the victorious armies of Napoleon, but a soldier he felt he could not be, for his heart was with bird-life not bloodshed ; so his father finally sent him to look after an estate in Pennsylvania.

Audubon, then a youth of seventeen, came gladly to his native land, but his first experience on landing was to catch the yellow fever. Kind friends nursed him back to health, and saw him safely in the care of Miers Fisher, who had charge of the Audubon estate at Millgrove, near Philadelphia.

" Miers Fisher," says the naturalist, " had been my father's trusted agent for about eighteen years, and the old gentleman entertained great mutual friendship ; indeed, it would seem that Mr. Fisher was actually desirous that I should become a member of his family, and this evinced within a few days by the manner in which the good Quaker presented to me a daughter of no mean appearance, but toward whom I happened to take an unconquerable dislike."

Nevertheless, the birds soon had a rival in Audubon's heart.

(TO BE CONTINUED.)

" And God, who studies each separate soul,
Of our commonplace lives makes His beautiful whole."

THE NEW EDUCATION.

DEAR SIR: Having found much in your estimable paper that was in sympathy with my own ideas, I send you an article that expresses my views on some phases of modern schools.

We observe within the past few years an attempt to crowd a little of every science known to man into the primary schools. Visiting the first grades, we find history, botany, zoology, astronomy, physical geography, anatomy, rhetoric, and all manner of densities making themselves at home. There is no question but all these are necessary in a complete education, but we must masticate them all in one mouthful? Shall we leave nothing to be new in the grammar grades? Shall there be no revelation in the high school? And is it good for the mind to grapple with such a diversity of themes at once? Can the infant mind retain and classify so much fragmentary knowledge, so that we are sure the time is well spent and the precious hours of school life filled to the best advantage?

The accompanying article gives the modern school as it looks to me. I ask for information, however, and would gladly see another view.

For the New Education is like unto a certain houskeeper who would build him an exceedingly great fine house, that the like of it should not be in three congressional districts.

And he gat him up at the crowing of the cock and labored with zeal. He said unto himself: "Behold, I will have me a front porch, two bay windows and a cupola.

For a little space he toiled at the walls. He notched the studding in notches that they might fit one to the other. But he bethought himself, "Lo, I have forgotten the cellar." And he dropped his saw and square with alacrity and possessed himself of a spade to dig. When he had digged but a little space it was borne in upon his mind that a house must needs have boards nailed upon its timbers, and he abandoned his cellar and nailed as many as three wide boards to the studding he had set up. And even as he nailed he was aware that in the houses he had seen there was lath and plaster applied to the walls. So he came unto the hardware man saying, "Give unto me a trowel, I beseech thee." Then when he had put laths upon the wall as high as the width of the three boards, he plastered those laths.

After which it came to pass that he notched and put up the studding for another wall; for surely a house must have more than one side.

Then he said unto his wife, "Of a surety, there must be flooring of good pine from the great state called Georgia," and he fell

upon his knees and matched pennies in the corner. But ere he had finished half a score of boards, he arose saying, "My cellar is not yet finished," and he laid hold upon his spade and deepened the hole.

But even as he threw the seventh spadeful over his head his eyes fell upon the plaster he had plastered and he cried, "Surely, bare white plaster is not seen in the houses of my brethren. My house shall be as theirs, adorned with the lily and the rose and marvelous dados of fantastic shapes." And he gat him to the paper man and bade him show down his scrolls of rare design, and he papered the wall as high as he had plastered.

Then he saw that the wall must needs be sided ere it was done, and he nailed weather boarding for a little time, till he cried, "Lo, can there be a house without shingles?"

And he shinned him up a ladder and shingled lustily for six minutes. Then he sought rest in change of occupation and added unto the lath and plaster a foot more of height, and digged the cellar two inches deeper.

After which he erected the studding of the other walls of his house. When he saw the flooring he had laid, he said, "I will even lay a costly carpet upon it." And so he did.

Then he put in one window sash and made a shelf for a clock. And again he digged in his cellar. After this, he put paper on the new piece of plastering he had made, and drove a nail for his mother-in-law's picture.

Now, that his mind might not congest, he took a change once more and again ascended and shingled upon the roof.

But his wife lifted up her voice saying, "Behold, thou hast not painted; art thou ignorant or only lazy?" And he hied him down right hastily and immediately seized upon a brush to paint the siding he had nailed.

And if that house be building to this day I know not, for I felt to be exceeding tired and I dusted my sandals and departed thence. But this I do know for a variety, there will not be its like in seven kingdoms when it is finished.

He that hath understanding, let him form a concept, and he that hath common sense, let him prophesy unto the people.—*D. I. Wise in School Education.*

JUNE.

M. C. HOFFMAN.

Gladsome June has come again,
Blossoming on hill and plain ;
Hear her birds, they ceaseless sing,
How the echoing forests ring !
O, the wild delight of June,
O, the glory of her moon,
In the woods, or on the mead,
Life with her is life indeed.
Ye whom sorrow dooms to-morrow,
Ye whose hearts by grief are torn,
Come away this summer day,
Out where light-winged zephyrs play ;
Out in yon resounding woods
There sweet Nature's music floods
Leafy dome and columned isle.
Those spontaneous songs beguile,
Woo, and win, and sooth, and sate,
Hearts by grief made desolate.
Come, the sun-beams point the way,
Hist, the breezes, come, they say.
Come, the wild-rose bids you come,
Come, the brooklet murmurs, come,
Star-eyed violets wait for you ;
Looking up through tears of dew.
Daisies white, Anemones,
Smile beneath their sheltering trees.
Here the upwelling life of God
Breaks, full-blossomed from the sod.
With His soul all things are rife
Death is swallowed up in life.
Come then on this summer day,
Hear what flowers and brooks can say
Come with God for one bright day.

EDITORIAL.

I WOULD not enter on my list of friends,
Though graced with polished manners and fine sense,
Yet wanting sensibility, the man
Who needlessly sets foot upon a worm.

—Cowper.

O COUNTRY dear, whose record full of glory
Brings tears of gladness into the watching eyes,
Whose deeds of heroes, handed down in story,
Thrill human hearts with wonder and surprise,
We pledge to thee our service and devotion,
To keep the rights by honored soldiers won,
Long as thy shores are washed by either ocean,
Thou fairest, greatest land beneath the sun.

—Selected.

SPECIAL NOTICE.

For the six months beginning with May, the questions in the Science of Education will be based on "Plato, the Teacher," covering one of the Township Institute Outlines (1897-8) at each examination, as follows: May, the first Institute; June, the second; July, the third; August, based on the "Phædo;" September on "Protagoras," and October on "The Symposium."

For the same examinations the questions in Reading and Grammar will be drawn from that part of "The Language Arts" bearing directly on these subjects.

A SENSIBLE VIEW OF A "DUN."

As a matter of business it is necessary, although unpleasant and expensive, to go through our subscription books at least once a year and mail statements to all delinquent subscribers. This was done recently, and the replies received illustrate the saying that "Some people are not all alike."

Many were prompt in remitting, and in some cases apologized for the delay; some were very sensitive about being "dunned," as they called it, and said some unnecessary, unpleasant things; however, not a few took a sensible, business view of the matter, and if they did not remit at once, set a date when the obligation would be met.

If circumstances are such that a teacher can not pay at the time he agreed to, and does not explain, he certainly can not justly complain if he receives a "reminder" or even a "dun."

THE N. E. A.

The program of the meeting of the N. E. A, to be held in Washington, D. C., next July, is completed, and is certainly a strong one. In order that a larger number may have the advantage of the general sessions, it has been

arranged to make two parallel programs for all the general sessions of the Associations except the opening and closing ones.

The usual arrangements have been made with the railroads for reduced rates. Tickets from all parts of the United States will be sold for a single fare for the round trip *plus* \$2.00, which pays the annual fee to the Association and *plus* fifty cents for those who wish to have the return limit of the ticket extended to August 31. This fifty-cent fee goes to the railroads to pay for the trouble of extending tickets.

Indiana should send a large delegation—the national capital of itself should draw an immense company.

For information in regard to hotels and stopping places, address Raymond A. Pierson, Washington, D. C., or W. R. Snyder, State Manager for Indiana, Muncie, Ind.

VACATION SCHOOLS.

Vacation schools, especially in cities, are rapidly growing into favor. Their necessity is recognized by every one who gives them consideration. Their feasibility has been demonstrated in many of the larger cities.

Up to date these schools have all been *charity* schools, but now, that their great usefulness has been made clear to everybody, they should become a part of the general educational system. It is not desirable to have these summer schools continue the work of the ordinary schools—this would have a tendency to break up all grading. Besides it is better for many other reasons that this summer work be of a different character. As a rule no text-books are used, but the time is given to nature study, manual training, excursions to the country and to manufacturing establishments, organized play, etc., etc.

By this kind of work three things are accomplished; *one*, the children are kept off the streets and out of bad company; *two*, they are pleasantly entertained and at the same time given many useful facts; *three*, they are trained to unselfishness and given higher ideals of life and good citizenship.

The time is not far in the future when the school authorities will provide for these schools as a matter of course. In the mean time let those who can do so, "lend a hand" and help to convince the public that these vacation schools are necessary and feasible. See an article on another page on this subject.

CASTE IN CUBA.

The Spaniards are the intelligent, educated class of Cuba, and usually are people of means. About 70 per cent. of the Cubans and negroes are illiterate, and will continue to be so until free schools are established by the government. The education of the masses has never been encouraged, only tolerated. The Spaniards live in the cities, or before the revolution, occupied beautiful estates throughout the island. They occupy the learned professions, and until recently filled the offices and owned the big manufacturing establishments. The Spaniards are the aristocracy, and the Cubans work

for them. To appreciate the situation one must understand a curious distinction and antipathy between the Cubans and the Spaniards.

A Spaniard was born in Spain. His son, who was born in Cuba, is not a Spaniard, but a Cuban. If a Cuban should go to Madrid when he is two weeks old and spend all his life in the palace, he would still be a Cuban, and not quite as good as a Spaniard. If a Spaniard should go to Havana when he is two weeks old, and spend all his life in that city or upon a plantation, he would still be a Spaniard and enjoy a distinction and social position which a Cuban can never attain. The sons and daughters of a Spaniard are Cubans if they are born in Cuba; but the sons and grandsons and great-grandsons of a Cuban must always be Cubans, no matter if they were born in Madrid and spend their whole lives in that city. No Cuban can ever become a Spaniard, no matter what happens to him, and from the Spanish point of view he is a degenerate.—"*Cuba and Her People*," by William Eleroy Curtis, in *The Chautauquan* for May.

BOOK EVALUATIONS.

CONDUCTED BY CHARITY DYE.

[NOTE.—This department is not a library bulletin, but a teacher's exchange through which the experience of one will reach a number of others.]

(Communications addressed to 1122 Broadway, Indianapolis.)

HISTORY CONTINUED.

Dickens's Child's History of England. This book has been discussed by lecturers and librarians with a difference of opinion as a result. The opinions which follow have been given by request.

Mr. Cyrus W. Hodgins, of Earlham College, (Chair of History), says:

"While 'Dickens's Child's History of England' is not fully up to the modern idea of a history of England in all respects, still, it remains a good book for the boys and girls; and its free and easy style makes it a favorite among them. I think it wholesome."

Mr. J. B. Roberts, of the Indianapolis High School, says:

"'Dickens's Child's History of England' is what its name implies, a history for children, but, like all well written children's literature, it is most entertaining reading for older people. It is, of course, not a history for the serious student, but it presents the main facts of English history with a fair degree of accuracy and with good historical perspective, while it is enlivened throughout by such vivid portrayals of characters and incidents as always came from the pen of Dickens, whatever his theme might be."

Mr. Samuel B. Harding, of the State University, (Chair of History), says:

"1. It is untrue to fact in a large number of details, and (what is more important) in the estimate which it puts on many important characters and movements.

"2. Its statement of fact is always interesting—what wouldn't be interesting if written by Dickens?—but to make the work interesting emphasis is often placed upon matters which, though true in themselves, give quite a false impression when put in the fore-front of the work.

"3. The language seems to be adapted to the reading of children of say thirteen or fourteen years, while the content is calculated for children of lesser age.

"4. The tone of the book is *bad*, vulgarizing, jingoistic. As an example of the former, notice the utterly unjustifiable way in which James I. is continually styled 'His Sowship.'

"5. Finally, to add a point of my own, the perspective of the book is all wrong if it is to be considered as *history*. Time and space are wasted in trivialities, petty anecdotes, such as Canute and the tide, Alfred and the Cakes, etc., which would better be used in giving a satisfactory understanding of the growth of matters of permanent importance, feudalism, parliament, etc. It is an interesting collection of stories, but even as such, I should hesitate to put it into the hands of a child, for the reasons given above."

Mr. Harding also sends the JOURNAL the following evaluations and will furnish others from time to time. Mr. Harding's experience in Felix Adler's School enables him to speak from practice as well as theory.

GREECE.

Fyffe, C. A. American Book Co. *History of Greece* (History Primers). For ages 11-13. Grades, 6-7. Language, simple and clear. Maps, the only illustrations. An excellent brief account of 127 pages.

Myers, P. V. N. Ginn & Co. *History of Greece*. For ages 13-16. High School. A political, social and literary history. Information, accurate. Language, well written. Illustrations, good. The best history of Greece for ordinary high schools. 557 pages.

ROME.

Allen, W. F. Ginn & Co. *Short History of the Roman People*. For ages 13-16. Grade, high school. Information, accurate. Book well written. Illustrations, good. The best history of Rome for high schools.

Robinson, W. S. Longmans. *A First History of Rome*. Ages, 12-14. Grade, 6-8. Language, fairly easy. Illustrations, fair. The best history of Rome for the grades.

FRANCE.

Adams, Geo. B. Macmillan. *Growth of the French Nation*. Ages, 14-18. For high schools. Information, scholarly—a firm grasp of principles. Language, rather mature. Illustrations, good. The best history of France for high schools.

Montgomery, D. H. Ginn & Co. *Leading Facts of French History*. Ages, 12-16. High School. Language, interesting. A good French history—not so scholarly as Adams.

ENGLAND.

(Evalued by Mr. Hodgins.)

Montgomery, D. H. Ginn & Co. *Leading Facts in English History*. For ages 15-18. High School. Treats of the development of the English nation. England chiefly—from 55 B. C. to 1890. Gives information on the origin and growth of English liberty. Language, direct and simple. Maps. Teaches national ideal. A consecutive story of Anglo-Saxon evolution of civilization is set forth.

QUESTIONS AND ANSWERS.

STATE BOARD QUESTIONS USED IN APRIL.

A STATEMENT IN REGARD TO AN ANSWER.

Mr. A. B. Frantz asks for some one to tell why a certain answer was given to a certain question in geography.

The "why," with the writer lay in the interpretation he gave to the question. The following is the question, with the interpretation in parenthesis:

How many degrees (of latitude) distant from each other may two places be in the same latitude (that is, both north latitude, or both south latitude).

We do not claim that this interpretation is the correct one, but in applying it the answer is 90° with a minus after it, thus, " $90^\circ-$," and this is the answer that was sent, but for some reason, the minus failed to get in type. By $90^\circ-$ we mean that the answer is not quite 90° , but as close to it as possible.

UNITED STATES HISTORY.

1. *Write within about two hundred words your estimate of the character of Daniel Webster. Cite the sources of your information.*

Daniel Webster was a genuine son of New England. His character was cast in the Puritan mould, and formed by the New England school system, under which he had been a teacher as well as a pupil. He was grave, staid, and in the cast of his character, moral and devout. In his later years he was given to running carelessly into debt, and like many other men of his day too fond of wine. As an orator of reason he has no superior if an equal in the English language. It is difficult, at least, to say what political speech can vie in logical force and impressiveness with his speech defending the Union in reply to the Southern separatist, Hayne; or what forensic speech excels in the same qualities his speech for the prosecution in the murder case of White. His style has been compared to the strokes of a trip hammer, which his sentences resemble in a measured force but not in monotony. The majesty of intellect sat on his beetling brow and he had the look and port of Jove. All men bowed down to him; all men crowded to hear him. He swayed the opinions of all men; but he did not, like Clay, win their

hearts. He never was a great party leader, nor was he ever a hopeful candidate for the presidency. It must be added that his moral strength was not equal to his power of mind. In regard to the great moral question of slavery, his desire for the presidency at last overcame his principle.

2. *If the price of bicycles continues to fall, what will be several of the most important results?*

The first and fundamental result will be more buyers; this means more riders and the more riders, the greater will be the efforts towards the improvement of roads. From this will follow more riding, a more intimate acquaintance of people with each other, a more extended and detailed knowledge of any community with all adjacent communities, etc.—all tending towards mental, moral, and physical improvement. Low prices sharpen competition, and force out of business the weaker firms.

3. *Tell the story of William Penn, and his career in Pennsylvania.*

Pennsylvania, was the philanthropic Utopia of the renowned and somewhat enigmatic character whose name it bears. Partly in satisfaction of a debt due from the crown to his estate, Penn was made Lord of Pennsylvania with almost kingly powers, including those of peace and war, which he of course, intended to exercise only in the interests of peace. His scheme of government was popular. He renounced for himself and his successors any power of doing mischief, "that the will of one man might not hinder the good of the whole country." The other characteristics which he impressed upon his settlement were religious toleration, a mild criminal law with the reformation of the criminal in view, and good treatment of the Indians. Toleration was extended to all who believed in God and would be good citizens, though christianity was recognized as the religion of the community by the enforced observance of Sunday. Murder was the only capital offense. There was a moral and social code of the Puritan type, but there was little of theocratic power to enforce it. To Penn's good treatment of the Indians his colony owed peace in that quarter, and uninterrupted progress. Slavery was not excluded. That Penn himself once held slaves a will, though not his last, remains to show; but he strove, though in vain, to secure for the slaves, the right of legal marriage. The soil and climate, however, combined with the general character of the settlers, shut out the pest. To Pennsylvania presently came a large exodus of Germans, driven from their homes by war. Their descendants, who are called the Pennsylvania Dutch, have preserved the two-fold character as well as the traces of their ancestral language. Toleration made Pennsylvania a religious museum. In it, besides the Quakers, were Anglicans, Lutherans, Scotch Presbyterians, Palatines, Ridge Hermits, Dunkers, and Pietists.

ARITHMETIC.

1. *Tell what is meant by the quotient of two numbers. Divide 5,401 by 142 and explain each step of the process as you would to a class commencing the study of long division.*

See text-books.

2. Give such explanation as you would use to make a class thoroughly appreciate the concept, the "square root of a number."

Simply let the class see that the "square root of a number" is one of the two equal factors of a number. To illustrate it concretely, use a square surface, and show that the side represents the square root, and the area represents the square.

3. Define common fraction, decimal fraction. If the following statements are not correct, correct them, and give reason for the alterations: Every decimal fraction may be expressed as a common fraction. Every common fraction may be expressed as a decimal fraction.

A common fraction is an expression for one or more of the equal parts of a unit.

A decimal fraction is one of which only the numerator is written, and the denominator is ten or some power of ten. Every decimal fraction may be written as a common fraction. Some common fractions may be reduced to a terminate decimal; but some cannot be so expressed.

4. How do the fractions, $\frac{2}{7}$, $\frac{2}{7}$, $\frac{2}{7}$, $\frac{2}{7}$, (double the denominator each time to get the next one) compare in value? Is there any superior or inferior limit to their values?

Multiplying the denominator by 2 divides the fraction; the resulting fraction in each case is one-half the preceding one. There is no superior or inferior limit.

5. Find in acres, etc., the area of a field if its length be 105 metres, the breadth, 71 metres.

$71 \times 105 = 7,455$, number of square metres, or 74.55 ars.; 1 ar. = .02471 acres; hence, 74.55 ars. = 74.55 times .02471 acres = 1.8421305 acres = 1 acre, 134 sq. rds., 22.41162 sq. yds.

$$6. \text{Simplify } 2\frac{1}{4} \times \frac{10\frac{1}{2} - 4\frac{1}{2}}{6\frac{1}{2} + 7\frac{1}{2}} \times \frac{3\frac{1}{2}}{1\frac{1}{2} \times 9\frac{1}{2}}.$$

The expression reduces to, $\frac{2}{4} \times \frac{6}{12} \times \frac{3\frac{1}{2}}{1\frac{1}{2} \times 9\frac{1}{2}} = \frac{2}{15}$.

7. If a man walk 85 miles, 3,000 feet in 27 hours and 15 minutes, how many feet does he walk each second?

$$85 \text{ mi., } 3,000 \text{ ft} = 451,800 \text{ ft.}$$

$$27 \text{ hr., } 15 \text{ min.} = 98,100 \text{ sec.}$$

$$451,800 \div 98,100 = 4\frac{6}{10}, \text{ number of feet per second.}$$

8. Find the time in which the interest on \$435 will amount to \$21.35 at 5%.

At 5%, \$435, in one year, yields \$21.75 interest; to yield \$21.35 will require $\frac{21.35}{21.75}$ of a year, or 11 mo., 23+ days.

9. Find the price of a 4% stock to equal a $3\frac{1}{2}\%$ stock at $97\frac{1}{2}\%$.

By proportion, $3\frac{1}{2} : 97\frac{1}{2} :: 4 : x$, from which $x = 111\frac{1}{2}$.

SCIENTIFIC TEMPERANCE.

1. Have alcohol and food any properties in common? If you think they have, name them.

Alcohol in no sense behaves like a food, but more like an anæsthetic. In

accordance with the general tendency of poisons, to act on one or more organs and not on the general system, alcohol is found to have a special affinity for nerve and cerebral substance. A food is a substance which, introduced into the digestive apparatus, can furnish the elements of repair of our tissues, and the material of animal heat.

2. *The continued use of opiates effects most seriously what one of the mind's powers?*

The will.

3. *The use to which the scientist puts alcohol should suggest what to the drinker of intoxicants?*

That it will tend to have the same hardening and shrivelling effect on his tissues that it does on the tissues that the scientist is trying to preserve, by extracting all the water therefrom. That any liquid that can be lighted has properties that make it exceedingly dangerous to be introduced into the human system.

4. *What is the physiological explanation of delirium tremens?*

It is due to the action of alcohol on the nerves. It is sometimes termed acute alcoholism. The attack is generally preceded by marked derangement of the digestive functions. The nerve cells have become so affected by the alcohol that they are not only deprived of moisture but are affected by what seems to be acute inflammation. From these fundamental disturbances arise all the terrible effects known as delirium tremens.

5. *Are the injurious effects of the use of tobacco due wholly to the nicotine which it contains?*

Besides nicotine, tobacco smoke contains other injurious constituents, such as carbon dioxide, ammonia, carbonic oxide, prussic acid and colidin. Cigarettes are especially injurious, on account of the large quantity of smoke taken into the lungs and with it that hurtful element, carbonic oxide.

6. *When is the use of morphine justifiable?*

In skilful hands, it is a priceless friend to the suffering; any medicine capable of fully relieving pain must be of the greatest value.

7. *Why is it not advisable to indulge frequently in sleep-producing narcotics?*

"Even if the desired sleep is procured, it is hardly the coveted rest, but a troubled and dreamy slumber, leaving, in the morning, the body quite unrefreshed, the head aching, the mouth dry and the stomach utterly devoid of appetite. But far worse than even this condition is the slavish yielding to the habit, which soon becomes a bondage in which life is shorn of its wholesome pleasures; and existence becomes a burden."

READING.

1. "If we think of it, all that a university or final high school can do for us is still but what the first school began doing—teach us to read. The true university of these days is a collection of books."—Carlyle.

If Carlyle were living now, is it probable that he would change the above statement? Why?

He would not, for his statement expresses a fundamental, eternal truth, brought to light through the experience of the ages.

2. *Distinguish between the functions of the author and the reader. How are they alike?*

In a general way, the chief function of the author is to create. The reader, as far as possible, should put himself in the author's place and live the creations as though they were his own. He puts the proper content into the symbols and comes into sympathetic touch with the feeling of the writer. In a special way, briefly, the chief function of the writer of history is to tell the truth; of the writer of science, to be clear and logical; of the writer of literature, to be true to life.

3. *In his essay on Goethe's Helena, Carlyle shows how the reader becomes one with the author. What is the meaning of "the reader becomes one with the author?" Is it an important point? Show how.*

(See answer to 2.) It is an important point. Only in this way can the author be thoroughly appreciated and understood, as he continually hopes, as he writes, that he will be.

4. *What is the value of reading as compared with the other "great instruments of cultivation?"*

It is the most important of all, because it is purely and simply *thinking*—embodying *interpreting, judging, reasoning*—the activities essential to the successful study of the various lines of knowledge.

GRAMMAR.

1. *Is the knowledge of psychology of any use to the teacher of grammar? Explain fully.*

Fundamentally, it aids the teacher in teaching grammar, in the same way that it aids him in teaching other subjects. It enables him to choose rightly those parts of the subject which are most suitable and appropriate to be learned at the different periods of school life. The teacher who has studied carefully the powers of the mind and their varying aptitudes and inclinations from childhood to maturity, is thereby enabled to discriminate wisely as to the kind and nature of the mental food most easily assimilated at a particular age.

2. *In the following, point out the principal elements of the thought expressed and the principal parts of the sentence: Death erects his batteries right over against our homes.*

The idea *death*, personified, is the thought subject, and the word "Death" is the simple subject, one of the principal parts. The idea, *erects his batteries right over against our homes*, is the thought predicate, and this expression is the complete predicate, of which "erects" is the simple predicate, the other principal element. "Erects" is modified by "batteries," a direct object, and by "right over against our homes," a prepositional phrase, of which "over against" is the preposition (compound) and "right" is an adverb modifying "over against."

3. *"I know that my Redeemer liveth." Point out the clause in the sentence. Classify it. Give its use. Give reasons in each case.*

The part, "that my Redeemer liveth," is a substantive clause; it is a clause because it is a part of a sentence and contains a subject and a predicate. It is used as a direct object because it expresses the idea that is known, or, in other words, it completes the meaning of the transitive verb, "know."

4. *Compare and contrast the preposition and conjunction as to their uses. Illustrate.*

The preposition expresses the relation between the idea expressed by its object and that expressed by the word which it modifies. As to ranks, these ideas are unequal. Illustration: Beyond the Alps lies Italy. The order—lies beyond Alps—gives the sense, and illustrates the foregoing statement.

The conjunction expresses a relation (*a*) between ideas of equal rank, as, "Her love was brave *and* true;" (*b*) between thoughts of equal rank, as, "Straws swim upon the surface, *but* pearls lie at the bottom;" (*c*) between thoughts of unequal rank, as, "Regulus gladly gave up his life *that* he might save his country.

5. *How many modes have we? Why? Name them and explain.*

The manner of the assertion must be consistent with the nature of the thought; and as thoughts differ so must the *manners* of asserting differ.

The expression corresponding to the thought may state (1) a fact or a question; (2) a possibility, necessity, etc.; (3) a doubt, supposition, or contingency; (4) a command, an entreaty, or an exhortation.

The different ways or manners by which the verb is enabled to express these ideas have given rise to the term *modes*; hence, mode is that property of the verb which expresses the manner of, the assertion. And according to the classification above, we have respectively, (1) Indicative; (2) Potential; (3) Subjunctive; (4) Imperative.

6. *What are the distinctions in the use of should and would?*

Should sets forth the act or state, not as depending on the doer's will, but on that of another; or, as proceeding from authority, influence, or circumstances, perhaps, out of his control. Hence, it implies duty or obligation. It frequently denotes simple futurity, with the idea of obligation; as, I (you, he) should go to town. *Should* is used (1) in indirect discourse to express simple futurity, from the standpoint of past time; as, He said he should go; and (2) in a conditional or subjunctive sense, the idea of past time being altogether lost sight of; as, If I should go home, he would injure me.

Would sets forth the act or state as depending on the nature of what is denoted by the subject of the verb. It frequently denotes the act or state as simply future or subsequent. Examples: He would not go without his father's word. This would answer our purpose. *Would* is used (1) to express desire or inclination; as, He said he would learn to write;" (2) to make a conditional assertion; as, He would give if he were able.

In general, *should* excludes the volition or control of what the subject denotes over the act or state; and *would* excludes the volition or control of

the speaker over the act or state, unless he is also what the subject of the verb denotes.

7. *Will the derivation of terms used in the subject of grammar help the student in understanding the subject? Show how. Illustrate.*

In many instances. The derivation of the terms primitive, derivative, transitive, auxiliary, etc., helps the pupils to understand their use in grammar, and also helps them to understand the ideas to which they are applied. (See dictionary.)

GEOGRAPHY.

1. *Give a brief view of the natural drainage of Indiana.*

More than half of Indiana is drained by the Wabash river and its tributaries. A narrow strip along the southern boundary is drained by the Ohio river. Lake Michigan and the Kankakee receive most of the drainage of the northwest. The Maumee receives the drainage of a small portion of the northeast. (See Complete Geography).

2. *What conditions produce salt lakes, such as the Great Salt Lake in Utah?*

Arid conditions replacing those of moistness cause lakes to shrink, and as much or more water evaporates than runs into the lake. These conditions produce a lake with no outlet. The streams are constantly bringing small quantities of salt, and in time the water becomes saturated, after which the salt is deposited on the lake bottom.

3. *What rivers of the Atlantic system have their sources west of the Appalachian high lands?*

The waters of the St. Lawrence, the Red River of the North, the Mississippi, and the rivers of Texas, rise west of the Appalachian high lands and ultimately reach the Atlantic waters. (A definite answer to this depends upon several elements which are indefinite).

4. *Name the States of our Union noted respectively for the following products: Coal, salt, cotton, fruit, vegetables, sugar, rice, tobacco, copper, wheat.*

Coal.—Pennsylvania, Illinois, Ohio, Indiana, Maryland, Iowa, West Virginia, Missouri, Kansas.

Salt.—Michigan, New York, West Virginia.

Cotton.—Texas, Alabama, Mississippi, Louisiana, South Carolina, Arkansas, Tennessee, North Carolina, Georgia.

Fruit.—Middle Atlantic States, Michigan, Ohio, Illinois, Indiana, Missouri, Florida, California.

Vegetables.—Most of the agricultural states. In some of the southern States, as Florida, Georgia and Tennessee, early vegetables are raised for the northern markets.

Sugar.—Texas, and Louisiana; a considerable quantity is also produced in Mississippi, Alabama and Georgia.

Rice.—North Carolina, South Carolina, Georgia, and Louisiana.

Tobacco.—Kentucky, Virginia, Tennessee, Arkansas, Maryland and Connecticut.

Copper.—Michigan, Arizona, Montana.

Wheat.—North Dakota, South Dakota, Nebraska, Kansas, Minnesota, Iowa, Missouri, Wisconsin, Illinois, Indiana, Michigan, Ohio, Pennsylvania.

5. *What and where are the great ship canals of the world, and what especial service do they respectively perform?*

The Suez Canal saves a tedious voyage of 3,750 miles on the route to India. "Through the St. Mary's or 'Soo' canal a greater amount of freight is carried than through any other canal in the world. The Manchester canal connects Manchester, (England) with the sea, and makes it a seaport. When possible, canals are cut across isthmuses to shorten routes. Proposed canals are the Panama canal and the Nicaragua canal. These would save thousands of miles in the route between the Atlantic and the Pacific.

It has been proposed to connect Lake Michigan with the Mississippi River by a *deep ship canal*; such a canal would be very valuable to the United States in a commercial way.

6. *Name and describe the five rivers of Europe most important for commerce.*

The Rhine, the Elbe, the Seine, the Danube, the Volga. (See Complete Geography.)

LANGUAGE ARTS.

1. *Compare some of the definitions of grammar as quoted by Hinsdale, with the definition as given in the State Manual.*

The definition in the State Manual is that it is the science of language, and that its subject matter is the sentence in its capacity to express thought. It is regarded both as a science and as an art. As a science, it treats of the rules and principles that guide us in the structure of the sentence. As an art, it treats of the skillful use of the sentence in the expression of thought. The definitions quoted by Hinsdale indicate that grammar, as a science, was not clearly perceived in the days of the early grammars. Well established views, clearly defined limitations and scientific treatment have not been characteristics of the text-books on this subject. Other phases of the study of English have been included which do not properly belong to the science of grammar.

2. *What is the fault with traditional definitions of grammar?*

They include too many phases of the study of English, which do not properly belong to the science of grammar.

3. *Give a summary of the reasons for teaching grammar in our schools.*

(a) It is an elegant discipline of the mind; (b) thought being the basis of the science of grammar, it is essentially a reflective study. It thereby tends to cultivate a habit of reflection, which is very necessary to progress in knowledge; (c) it aids the pupil in learning to speak and write correctly.

4. *What is the main fault with a large part of the grammar work that has been done in Indiana recently?*

It simply dealt with words, words, words; with technical terms and

definitions before any ideas of them were in the mind ; with a "jabbering" of things about gender, number, and person, that was worse than idleness.

5. *Mention some things the pupils must do in order to master the subject.*

The pupils must learn to interpret language ; to reflect easily and logically ; to grasp the elements of the thought with clearness, and their corresponding forms in the sentence.

6. *Mention some of the fundamental ideas in grammar.*

That language is used to express thought and is separable into sentences ; that the sentence is the unit of language ; that this unit regarded as a thought or as a group of words is composed of elements—principal and subordinate ; and that the nature of the sentence depends upon the kind of thought.

PHYSIOLOGY.

1. *Describe the auditory apparatus as represented in the above diagram, and tell briefly "how we hear."*

Some mechanical movement puts the air into a rapid wave-vibration ; the pinna receives the sound-waves and conducts them into the auditory canal, which leads them against the *membrana tympani* ; this membrane receives the waves of sound, and, being thrown into vibrations, it gives the chain of bones the same movement ; the bones transmit the wave-vibration across the tympanic cavity to the membrane in the *fenestra ovalis*, and give to this membrane the vibratory movement ; this membrane puts the lymph-like fluid of the labyrinth into vibrations ; this fluid, assisted by the otoliths, which are thrown against the nerve filaments during the vibrations gives the vibratory impression to the nerve filaments floating in the lymph ; these carry the impression to the auditory nerve ; the auditory nerve carries the impression to the brain, and we are conscious of audition. (For description see text-book).

SCIENCE OF EDUCATION.

1. *What is the significance of the "Story of the Cave?"*

"The simile of the cave is a continuation of the simile which compares the sun to the good ; by comparing the lower grades of reality to objects illuminated and shadows projected by an inferior source of light. The principal point of the simile lies in insisting on the false sense of reality which uncriticised associations acquire for a mind which has never been led to feel their inconsistency, and on the necessity and possibility of learning by education and experience, to apprehend a coherent and concrete world, from which the mind looks back on the guess work or associative imagination of its uneducated past as on a procession of shadows or likenesses connected by contiguity. This is the problem throughout this part of the Republic—what sort of difference education makes in man and in what direction it leads him. The emphasis is on the point that, though man has access to wholly different worlds, yet these are only stages of his mental progress, and the higher include all that was real in the lower."

2. *Mention some points brought out by the allegory.*

The great majority of men are represented as possessors of an "uneducated consciousness" as mere victims of seeing. They think that they have a clear idea of their own character and relation to their neighbors, but really the image which does duty in their mind for such an idea is a mere phantasm projected by a false light of sentiment or association. "Carlyle has said somewhere that after all no man struggles for what has absolutely no shadow of right or justice; it is always some aspect or distorted conception of a true right that, at bottom, he is fighting for." "My opinion is that in the world of knowledge the idea of good appears the last of all, and is seen only with an effort." (See page 322.)

3. *Give a brief statement of the course of study recommended for the rulers, with reasons for subjects selected.*

1. The elementary course recommended is music and gymnastics, because it deals with the habits and feeling.

2. The next course is plain geometry, solid geometry, astronomy and harmonics. Arithmetic or the science of numbers is the simplest exercise of reflection, the beginning of scientific education, and the first step into the intelligible world. The educational value of geometry is its power of presenting to the mind a spectacle of truth exempt from inconsistency and fragmentariness. It has its use in land surveying and in the "noble profession of war." Solid geometry follows naturally as the science of three dimensions on the science of two. Astronomy is next, as the science of solids in motion; it should be treated as a mathematical science and not as a record of observation. Next in order is harmonics. The motions that give rise to consonance and dissonance are to the ear as those of the heavenly bodies are to the eye, and the science of harmonics, or acoustics, is therefore a sister science to astronomy. The final course is the study of philosophy. It is characterized as (a) *rational*, being contrasted with the finite sciences as partly sensuous, in terms of the "Cave" allegory; (b) *concrete*, as aiming at a complete and systematic grasp of every matter presented to it, and therefore, (c) *critical* or *categorical*, because it necessarily attempts to adjust and modify all isolated assumptions so as to fit them for a place in the ultimate unity of reality; and (d) *moral*, or finally *religious*, because the unity thus established is, or culminates in, the good which is at once the end of all action and ground of all reality.

With the vision of this ultimate ground the system of knowledge attains a natural completion.

4. *What was Socrates's idea of the so-called "practical education?"*

He did not believe in it; he considered it wholly inadequate to man's wants and capabilities and that it was ridiculous to learn a thing merely to help get a living. He desired an education which developed all the powers of man. He says, "In every soul there is an organ which is purified and illumined by these studies, when by other pursuits it is lost and dimmed; and this eye of the soul is more precious than ten thousand bodily ones, for this alone beholds the vision of truth."

5. *What was Socrates's idea of the early education of children? Do you agree with this idea? Why?*

Somewhat like that of Jean Paul Richter's—(1) that it should be made so interesting and attractive that the child would seek it without compulsion and (2) that the child should be encouraged in the exercise of any special bent of mind in the line of education.

6. *Name the four forms of government as discussed in the Republic. How is the change to democracy brought about?*

(See pages 184 and 185.) The change to the democracy, as understood by Plato, is brought about by allowing the control of affairs to pass into the hands of the people, many of whom are not only ignorant, but incapable of high ideals.

SOLUTIONS REQUESTED.

Examples 23, 24, 25, 26, 27, 28 and 31, pages 322 and 323 of the Complete Arithmetic, Indiana Series.

23. If a certain number increased by 15 is 4 times the number, then 15 must be 3 times the number; hence, the number is $\frac{1}{3}$ of 15, or 5.

24. If 3 times a number remains when 20 is taken away from 5 times the same number, then 20 must be 2 times the same number; hence, the number is $\frac{1}{2}$ of 20, or 10.

25. Samuel's age, less $\frac{1}{2}$ his age and six years more, leaves 4 years; then, before the "6 years" is taken away the remainder must be 10 years. That is, Samuel's age less $\frac{1}{2}$ his age equals 10 years; hence, 10 years is $\frac{1}{2}$ his age, and all his age is 20 years.

26. 9 cents and $\frac{1}{4}$ of his money and $\frac{1}{4}$ of his money make all of his money: as $\frac{1}{2}$ of his money and $\frac{1}{4}$ of his money make $\frac{3}{4}$ of his money, 9 cents must be $\frac{3}{4}$ of his money; hence, all his money, or $\frac{4}{3}$, is 36 cents.

27. When ten is taken away from 5 times the number, there is left 3 times the number and 4; hence, if the 10 is not taken away, it is clear that 5 times the number is equal to 3 times the number and 14; and from this statement we see that 14 is equal to 2 times the number; or, the number equals 7.

28. Here, $4\frac{2}{3}$ times the number, plus 3 equals 5 times the number; hence, 3 corresponds to $\frac{1}{3}$ of the number; and 9, or all the number = 9.

31. Here, John's money equals 3 times Frank's, and as Frank's money equals 1 time Frank's, John has 2 times Frank's money more than Frank. Hence, 30 cents corresponds to 2 times Frank's money; if 2 times Frank's money equals 30 cents, Frank's money equals 15 cents. John's money, then, is 45 cents.

A PATRIOTIC PRIMER FOR THE LITTLE CITIZENS, edited by Wallace Foster, Indianapolis, contains about 112 pages of good patriotic material. In it will be found a picture and a short sketch of all the prominent presidents of the United States. It will be especially useful in working up programs for patriotic occasions.

MISCELLANY.

THE Kokomo high school this year graduated a class of twenty-seven.

ALBANY sent out a class of three this time. Edwin F. Dyer is superintendent.

THE Sheridan high school graduated ten this year. M. L. Corey is principal.

THE Anderson high school has graduated twenty-eight and Superintendent Carr is happy.

EARLHAM COLLEGE will hold its commencement June 9th, and will send out thirty-five graduates.

CAYUGA closed out its year's work May 21st, with twelve graduates. Oscar B. Zell is superintendent.

FRANKFORT graduated a class of thirty-one this year. Mrs. Emma Mont McRae made the class address.

J. F. THORNTON, superintendent of the Rockville schools, opened a summer normal at Rockville, May 30.

REMINGTON graduated a class of eleven. W. R. Murphy is superintendent and J. H. Johnston is principal.

"ROMAN Life Under the Empire" is the subject of the leaflet for May. Address J. H. Miller, Lincoln, Nebraska.

THE Salem schools closed May 15th, with eleven graduates from the high school. H. B. Wilson is superintendent.

THE Lebanon schools closed May 6th, with a graduating class from the high school of fifteen. J. R. Hart, superintendent.

SUPERINTENDENT J. S. RAGSDALE, of North Judson, and county superintendent W. A. Faust, will conduct a summer normal at Knox.

CROWN POINT sent out from its high school a class of fifteen. Elizabeth L. Horney is principal and Frank H. Heighway is superintendent.

ROCKPORT graduated from its high school this year a class of sixteen. F. S. Morgenthaler is superintendent and O. P. Foreman is principal.

NEW ALBANY sent out a class of thirty-eight from its high school this year. J. P. Funk is principal and W. H. Hershman is superintendent.

THE Educational Press Association will hold its next meeting in connection with the N. E. A., at Washington. A good program has been provided.

THE Delphi high school this year graduated a class of seven—*five boys* and two girls. F. C. Whitcomb is principal and W. S. Almond is superintendent.

SPICELAND ACADEMY, under the direction of Geo W. Neet, is more

prosperous than ever before. The attendance was never before so large. This school has for many years been noted for its unpretentious and thorough work.

THE Connersville high school closed its year's work May 26th, with eleven graduates. The diplomas were presented by the principal, Walter R. Houghton.

CHARLESTOWN.—The commencement address was made May 24th, by E. H. Mark, superintendent of the Louisville schools. E. E. Olcott is superintendent.

MARTINSVILLE had a graduating class of eight. Professor D. W. Dennis made the class address. J. E. Robinson is principal and W. D. Kirlin is superintendent.

THE North Vernon high school held its twenty-first commencement May 26th, and graduated a class of eleven. Leva M. Foster is superintendent and Lillian Carter principal.

NOBLE COUNTY.—The Common School graduates of this county held their commencement exercises in Albion, May 25th. There were ninety-five graduates and an interesting program was carried out.

"COLLINEAR Sets of Three Points, Connected With the Triangle." is the subject of a paper by Dr. R. J. Aley of Indiana University. It is in print and will doubtless interest those high up in mathematics.

A SUMMER normal will be held at Salem, beginning June 13, under the direction of County Superintendent S. H. Hall. The principal instructor will be H. B. Wilson, superintendent of the Salem schools.

UNION CHRISTIAN COLLEGE located at Merom, has had a very prosperous year. Its commencement will occur June 15th, when it will graduate the largest class for many years. Dr. L. J. Aldrich is president.

RICHMOND.—Superintendent Mott recently had about 350 of his third year pupils go to the country and witness the process of sheep-shearing. Such a trip was certainly valuable in more directions than one.

"ON THE Reduction of Irrational Algebraic Integrals to the Rational Algebraic Integrals," is the subject of a discussion by Professor John B. Faught, of Indiana University. It is published in pamphlet form.

THE Bowsher Tellurian manufactured at Champaign, Ill., is the most complete apparatus of the kind yet exhibited. It shows the relation of the earth to the sun in its revolution around it, and it *explains* the phenomenon of the "seasons."

THE school for "Feeble-Minded Youth," located at Ft. Wayne, under the supervision of Alexander Johnson, is doing excellent work. Superintendent Johnson is by nature and education fitted for the responsible position he holds.

"STORY OF THE HATCHET" is the name of an historic tale of colonial times, written by B. F. Kennedy, of Trafalgar, former superintendent of

Johnson county. This story is printed in pamphlet form and is both interesting and instructive.

THE Noblesville high school graduated twenty-six, May 5. Dr. G. S. Burroughs, of Wabash College, made the class address. The blood red color of the programs indicates that Superintendent John F. Haines, is in "dead earnest" this time.

"THE POCKET" is a sprightly Evansville paper devoted to news and literature. Its educational page is edited by W. H. Hester, superintendent of the Evansville schools. Its April issue contains a picture and sketch of State Superintendent Geeting.

LA PORTE.—The school board here has reduced the salaries of the superintendent, of all the teachers in the high school and of some of the grade teachers—a streak of bad economy. Superintendent O. C. Seeley would not stand the cut and has resigned.

THE school authorities of Indianapolis recently joined with the artists and lovers of art in making an "Art Exhibit" for the public. It was a great success and about *one thousand dollars were cleared*, which will be used in purchasing art decorations for the schools.

THE GRANDEST OFFER YET.—Just what every one needs at once. Any one sending a renewal of his own subscription or a new one and \$1.00 will get the JOURNAL, one year and a *complete War Atlas*. It consists of sixteen pages and is much more complete than any of the ordinary geographies or atlases. See advertisement on another page. Offer good till July 10.

THE STATE LIBRARIAN has just issued another of his bulletins. This time it is the bibliography of cities and towns. He has also issued a circular of statistics in which the number of library books in the State is compared with the population. There are forty-two counties in the State that contain no public library. Over 52 per cent. of the people have no access to libraries, but this should not be construed to mean that they have no access to books.

MADISON.—Professor Lowes, of Hanover college, recently spent a day in the Madison schools, and his special purpose was to find out what was being done in the teaching of English. He was so much pleased with what he saw that he wrote an article for the *Madison Courier*, in which he commended the work in most unqualified terms. Superintendent C. M. McDaniel, has made the teaching of language a specialty, in his schools, and the work is done in a superior manner. It would be difficult to emphasize too much the teaching of the subject.

JOHNSON COUNTY has two acting school superintendents. At the time for electing a superintendent last June, the trustees failed to elect and E. L. Hendricks held over. The trustees stood politically five Republicans and four Democrats with a Republican Auditor. At the June meeting one of the Republicans was sick (?) and absent and one of the Democrats scattered his vote so as to prevent a tie with the result named above—no election. In January in the light of a Supreme Court decision, the trustees

were called together, and they elected John W. Terman as county superintendent. The legality of this last meeting is being tested in the Courts and in the meantime, both Mr. Hendricks and Mr. Terman are issuing licenses and doing other office duties.

THE TRANS-MISSISSIPPI EDUCATIONAL CONVENTION, Omaha, June 28th, 29th, 30th, will issue its complete program and announcement in a few days. Copies may be obtained by writing Victor Rosewater, Chairman-committee on publicity; C. G. Pearse, chairman, or J. M. Gillan, secretary of the executive committee. The program contains the names of many of the strongest men and women in the country in various lines of educational work. The interest in the convention is constantly increasing and the attendance promises to be very large.

PROTECT THE BIRDS.—The State meeting recently held for the protection of birds, was a very interesting one. Several valuable papers were read and a permanent organization was agreed upon. Teachers should become interested in this subject for they have great opportunities to protect the birds and other animals from cruel treatment. In doing this, they teach the children to be more humane and better citizens. A person who is cruel to helpless animals cannot be trusted as a sympathetic friend. The State of Washington has a Bird Day. Indiana should have one.

DEPAUW UNIVERSITY is in hard lines for money. Some years ago when Washington C. DePauw left the institution a rich endowment it started out on the assumption that the gift was all available at once, which was a mistake. Hard times and bad management have reduced the value of the bequeathed estate and the present available income is the proceeds of about \$100,000. In five or ten years more the endowment will have added to it about \$250,000 more. DePauw ought to have an endowment of not less than \$500,000, and considering the strength and wealth of the Methodist Church in this State, that amount should be raised without great difficulty.

THE NATIONAL NORMAL UNIVERSITY, of Lebanon, Ohio, recently inaugurated J. W. Withers, as president. The "Old Normal" was founded in 1855 by Alfred Holbrook, who remained its president until the close of last school year. Prof. Withers then is the second president, Pres. Holbrook having served *forty-two* years. Prof. Withers graduated at the National Normal in 1890 and has been a teacher in it most of the time since. He has been acting-president for the past year and has proved himself equal to the position. The school continues to prosper and its friends have confidence in the new president. C. K. Hamilton, the business manager of the institution, is the right man in the right place.

PROF. GEORGE THORNE THOMPSON, teacher of geography in the Chicago Normal, spent the week ending April 2d, in the Richmond Schools giving lessons to the teachers on "*Chalk Modeling in Geography Teaching.*" Superintendent Mott divided the corps of teachers in three classes, thus making the number in each class so small that each teacher could work throughout the lesson hour and receive some personal instruction. Mr. Thompson was employed by the teachers of the city, and they were greatly

delighted with his work. He not only afforded valuable aid in the matter of map drawing and picture work, but by his enthusiastic work gave the whole subject of geography a strong uplift in all the schools of the city.

SPECIAL OFFER.—Any one renewing his subscription to the JOURNAL or sending a new subscription and *one dollar*, will receive a panorama of Spanish views—principally views of Havana. There are thirty-two views in all, in neat heavy paper cover. These views are very interesting at this time.

To any person sending \$1.25 we will send the INDIANA SCHOOL JOURNAL for one year and *MODES*, a sensible, practical fashion paper for ladies. The regular subscription price of *MODES* is \$1.00 per year. Send stamp for sample copy. Here is a chance to get two good papers for the price of one. Renewals count the same as new subscriptions.

EDITOR INDIANA SCHOOL JOURNAL:—For the problem on page 333 of the May JOURNAL, "Where shall a pole 120 ft. high be broken that the top may rest on the ground 40 ft. from the base?" I herewith submit a solution which I think is arithmetical. It can be proven that the hypotenuse of a right angle triangle is $\frac{1}{3}$ of the perimeter, and that the two adjacent sides are $\frac{1}{3}$ of the perimeter. $120 \text{ ft.} + 40 \text{ ft.} = 160 \text{ ft.}$, the perimeter of the above triangle. $\frac{1}{3}$ of the perimeter is the two sides. $\frac{1}{3}$ of the perimeter is the hypotenuse. 40 ft. or $\frac{1}{3}$ of $160 = \frac{1}{3}$ of perimeter, is one of the sides. Then, $\frac{1}{3} - \frac{1}{3} = \frac{1}{3}$, and $\frac{1}{3}$ of $160 = 53\frac{1}{3} \text{ ft.}$, the other side and the required result. I would be pleased to hear from others in regard to this solution.

Respectfully yours,

Farmersville, Ind.

E. E. ELLIS.

THE STATE BOARD at its last meeting granted licenses as follows:

Life:—Henry E. Coe, Auburn; Wm. E. Harsh, Avilla; G. M. Hoke, Garrett; W. B. Jackways, New Carlisle; Jno. W. Lydy, Kirklin; Albert F. Stewart, Rushville; H. S. Voorhees, Brookville.

Professional.—Geo. A. Briscoe, New Albany; Elton Broughton, Rome City; Henry G. Brown, Angola; Harlan J. Clark, West Lafayette; A. J. Collins, Angola; Wm. H. Fouse, Corydon; Jas. H. Grover, Frankfort; Louis H. Hamilton, Rennselaer; Elmer W. Lawrence, Knightstown; Leonard M. Luse, Indianapolis; W. R. Murphy, Remington; Chas. A. Peterson, Lebanon; Fred A. Reece, Valparaiso; C. M. Seiler, Evansville; T. J. Skidmore, Frankfort; M. H. Stuart, Sheridan; Luther E. Swartz, Napanee; Chas. H. West, Ambia; Mrs. Emma Felton Wilson, Alexandria.

JAY COUNTY.—The Supreme Court reversed the judgment of the Circuit Court of Jay county, declaring Lewis Crowe to be superintendent of that county. Crowe received the votes of the trustees of six of the twelve townships in Jay county, and after 130 ballots had failed to change the result, he was declared elected on the ground that one of the other six trustees had become postmaster of the town of Bryant, and had thereby vacated the office of trustee. From this it was argued that only eleven legal votes were cast for county superintendent, of which Crowe received six. The Supreme Court says that the postmaster was still trustee in fact, although he might

have given cause for declaring his office vacant, and that, as Crowe received only six out of twelve votes cast, he was not elected superintendent. Judging from what has been done in other counties, under recent ruling of the Supreme Court, it is presumed that immediate steps will be taken to compel the trustees to come together and elect a superintendent.

FORTVILLE.—For the past three years, J. W. Jay, superintendent of the Fortville commissioned schools, has been pursuing a plan that is proving a strong factor in intensifying the high interest already manifested by the schools. The closing week of school is known as "High School Week." During this week every member of the high school is required to give an oration of his own production, before a public audience. Six weeks before the close of school each class appoints a president, secretary, and program committee. These officers make the very best arrangements possible for a highly successful exercise, the themes being assigned by the teachers. On Monday evening just before eight o'clock the Freshmen class of twenty-three students, keeping step to good music, marched from the high school rooms to the M. E. Church. A packed audience already awaited their appearing. On Wednesday evening, the Sophomore class, numbering twenty-four members, took their places on the platform and on Friday night the Juniors delivered their oration. Excellent music was one of the features of the program each evening. Although the largest room in town was secured in which to hold these exercises, yet it proved entirely too small to accommodate the large number of pupils that assembled to hear their friends. This plan brings parents, friends, and pupils of the school together and has proven a valuable feature in organizing the school spirit, unifying the community and intensifying the interest of this excellent school. Parents and pupils are unanimous in their praise of their schools. The graduating class delivered no orations, but instead provided a lecturer of reputation, special musical program and class poet or valedictorian.

TOWNSHIP TRUSTEE CASE ADVANCED.

The Supreme Court advanced the case of the State on relation of Joseph R. Harmon against Benjamin F. Menaugh, set it for oral argument on June 8, and ordered briefs filed within ten days. This is the case in which is involved the constitutionality of the law extending the terms of township trustees until after the election in November, 1900.

MEETING OF SOUTHERN INDIANA SUPERINTENDENTS.

The Southern Indiana Superintendents' Club met in their semi-annual meeting at Edinburg, Indiana, on April 22. There were present Superintendents C. M. McDaniel, of Madison; J. A. Carnegie, of Columbus; H. C. Montgomery, of Seymour; H. B. Wilson, of Salem; T. A. Mott, of Richmond; Charles F. Patterson, of Edinburg. The meeting was full of interest.

Friday forenoon was spent in visiting the schools of Superintendent Patterson. The afternoon was spent in a round table discussion of many educational topics. During the last two hours of the session the teachers of

Edinburg joined the Superintendents in their meeting. The discussions were full of interest and very valuable. It was decided that hereafter there should be a two days' session instead of one. The next meeting will be in October with C. M. McDaniel, in Madison.

HISTORICAL SECTION.

There will be a meeting of the Historical Section of the State Teachers' Association of Indiana, in Room 12, State House, Indianapolis, June 16, 1898. All Indiana teachers of History, Civics, Economics, and collateral subjects are especially invited to this meeting. All superintendents and principals of high schools, who may be especially interested in the teaching of these subjects, are cordially invited to become members of the Section and to take part in its deliberations.

The general purpose of this first meeting will be to perfect and extend the organization of the Section and to take into consideration the "Teaching of History and Civics below the College."

The two subjects to be specially discussed are, "A High School Course in History and Civics," and "History in the Grades."

The afternoon session will begin at 3 p. m. and the evening session at 8 p. m.

The headquarters of the convention will be at the Bates House, which offers a rate of \$2.50 per day.

For further particulars, address Dr. J. A. Woodburn, Bloomington, Ind..

ILLINOIS UNIVERSITY HIGH SCHOOL CONFERENCE.

The High School and University people of Illinois held their annual meeting at the University of Illinois, May 18, 19, 20. It is doubtful if there has ever been a meeting in the State productive of more good toward the unification, organization, and continuity of secondary and higher education than will grow out of the meeting just closed.

Every subject on the program was vitally related to both the high schools and the colleges of the university.

The leader in each discussion was selected on the ground of his having had a long, careful, and thoughtful practical experience along the line he was to discuss.

A phase almost unique in the discussions was the handling of the points from so fundamental a standpoint as to be alike valuable in all stages of the work from elementary to university graduate work. It showed clearly the grasp of the truth that not only is the individual school an organism, but that it is only a phase of the larger organism giving rise to the whole school system and this in turn in organic relation with the still larger life that binds together all institutions under universal laws of living.

The unanimity of purpose and thought of the university and high school people on the relation of high school and university will mark the beginning of a new period. The university has broken away from the old order of entrance requirements, and agrees that it is not the work of the high

school to *prepare* students for the university, but it must meet the needs of the unfolding life of the boys and girls at the high school stage of development, and that the university must take them from the high school and shape their growth from that point on, just as the high school must take pupils from the grades and shape its work to suit further needs. On the other hand, the university continues to keep in close touch with the high schools for its own welfare, and at the same time to give the high schools the benefit of its broader view of the school as seen from above. To this end a specially qualified member of the faculty is kept in the field the greater part of the year.

In addition to placing on the program some of the strongest educators of the State, the President and Committee were able to secure the services of Commissioner Wm. T. Harris, State Superintendent D. M. Geeting, of Indiana and Professor Nicholas Murray Butler, of Columbia University. The good effect of the presence and addresses of the gentlemen of so wide, and thoughtful experience can not be estimated here. Yet it will be of interest to Indiana people to know that Superintendent Geeting's address on "The Township High School," setting forth as it did in a clear, forcible way the problem as it is being worked out in Indiana, was received with great favor.

So anxious were the members to get every point of advantage in solving the Illinois problem that Mr. Geeting had to forego his invitations to dine out and hold a continuous reception at his hotel to answer the numerous questions suggested by the discussion. Indiana has a right to feel proud of what she has accomplished and of her Superintendent.

W. W. BLACK.

THE Eastern Indiana Normal, at Muncie, seems now to be an assured success.

IN LAST month's issue in naming the officers of the Northern Indiana Teachers' Association, the name of G. F. Kenaston should have been given instead of that of F. L. Jones on the Executive Committee.

THE Northern Indiana Normal at Valparaiso, has had a prosperous year. The new course of study, new laboratories, new library and other new facilities have added much to the value of the year's work. The school will celebrate its twenty-fifth anniversary August 10, and the twenty-sixth year will open August 30. See new advertisement on another page.

HIGH SCHOOL LICENSES.—In the examinations for professional and life State licenses held on the last Saturdays of March and April, 1898, quite a number of applicants failed, but made good grades in some subjects. The State Superintendent of Public Instruction has held that county superintendents may accept the passing grades made by such applicants in lieu of examination in those subjects for county high school licenses in any county in the State. This will be quite a convenience to applicants who failed to make State licenses and who apply for county high school licenses.

PERSONAL.

D. H. GILKEY, of Crawfordsville, has taught twenty-seven consecutive years.

WALTER DUNN, of Brookville, has been elected superintendent of the schools at Knox, for next year.

A. SHERER, who has been superintendent of the schools at Knox, will spend next year at Indiana University.

GEO. W. NEET has been elected superintendent of Spiceland Academy and the Spiceland schools for another year.

J. B. FAGAN has been re-elected at Frankton at an increased salary. He is just now teaching psychology at the State Normal.

JOSEPH CARHART, who was formerly a prominent educator in this State, is now president of the State Normal School, at Mayville, North Dakota.

THOS. NEWLIN, formerly of this State, but now president of a college at Newburg, Oregon, will do some institute work in Indiana this summer.

PROFESSOR SANFORD BELL of Northern Indiana Normal, delivered the address on the occasion of the high school commencement at North Judson.

DR. W. N. HAILMAN, formerly superintendent of the La Porte schools, is President-elect of the Elementary Department of the National Educational Association.

W. A. HESTER has been elected superintendent of the Evansville schools for a fourth year, and with an unsolicited increase in salary. He now receives \$2,640 and earns it.

J. H. TOMLIN has been re-elected at Shelbyville. Mr. Tomlin is proud of his two new school buildings and of his high school, which has more than doubled in the last four years.

EDWARD G. WARD, author of "Ward's Method of Teaching Reading," has been elected superintendent of the borough of Brooklyn for a term of six years with a salary of \$6,000 a year.

W. H. SIMS, who has for many years been superintendent of the Goshen schools, has been elected for another year. He is just proud of the fact that his high school has been placed on the diploma list of Michigan University.

REV. E. A. DEVORE, of Richmond, has been nominated for Superintendent of Public Instruction by the State Prohibition Convention. Mr. DeVore is a graduate of Union Christian college and is a man of energy and high ideals.

JOHN A. WOOD, principal of the La Porte high school, has been promoted to the superintendency to take the place of O. C. Seelye, resigned. Mr. Wood is a graduate of both the State Normal and the State University, and is a good man.

GEO. W. BENTON of the Indianapolis high school and J. H. Woodruff, superintendent of writing in the Indianapolis schools, will conduct a teachers' excursion to the N. E. A. at Washington. They are good people to go with. See their advertisement.

W. W. BLACK, an Indiana man who is just finishing his second year in the University of Illinois, has recently refused a situation worth \$2,400 a year. He has had such success in the lecture and institute field that he will, for a time at least, give his time to this line of work.

HARVEY M. LAFOLLETTE former superintendent of Public Instruction for Indiana, was married June 1st, to Miss Katharine Warner, of LaFollette, Tennessee. Mr. and Mrs. LaFollette will be "at home" in Lebanon, Ind., after October 1st. The JOURNAL joins in extending congratulations.

R. I. HAMILTON has been elected for a thirteenth year as superintendent of the Huntington schools. Mr. Hamilton was unanimously elected and both the local papers commend his election and compliment the schools in unqualified terms. The JOURNAL extends hearty congratulations.

SUPERINTENDENT W. D. WEAVER, of Marion, is now at Chickamauga, as chaplain of Col Studebaker's regiment. The school board gave Superintendent Weaver leave of absence and his place is being filled by his assistant Miss Lydia Dwiggins. Superintendent Weaver will make an ideal chaplain. He has the very best wishes of a host of friends.

MISS MARY E. ROWE, of Indianapolis, has been engaged to deliver a course of lectures on "Pedagogy" before the primary classes of the Free

Kindergarten and Primary Normal Training School of which Mrs. Eliza A. Blaker is the superintendent. Miss Rowe gives popular as well as professional lectures. Address her at 1415 Park Ave., Indianapolis.

J. W. NOURSE, of Rockport, and for many years superintendent of Spencer county, will be a candidate for Superintendent of Public Instruction before the Democratic State Convention. Mr. Nourse made a good county superintendent, and has always proved equal to any position he has assumed to fill. He is an upright man and always a gentleman.

W. B. SINCLAIR, for twelve years superintendent of Starke county, has fully decided to be a candidate before the Democratic State Convention, for Superintendent of Public Instruction. Mr. Sinclair was a candidate two years ago and made a thorough canvass of the State, and is known to thousands of teachers. His many friends will be glad to know that his sojourn in the South "has greatly improved his health, and that he is now all right."

JOSEPH BALDWIN, emeritus professor of the University of Texas, located at Austin, is now devoting his time to lecturing on educational subjects and institute work. Dr. Baldwin taught the first "summer normal" the writer ever visited or heard of. It was in Kokomo. He afterward conducted a normal school in Logansport. Later, he was at the head of the Missouri State Normal, and still later, of the Texas State Normal. He is the author of three or four books on pedagogical subjects.

P. P. STULTZ, for many years superintendent of the Jeffersonville schools, is seriously considering the question of becoming a candidate for State Superintendent before the Republican State Convention. Mr. Stultz is demonstrating his progressive spirit by spending this year in Indiana University, as a student. If he should make up his mind to be a candidate and should be elected, he would be a positive factor in the educational affairs of the State. He has strong convictions and always has the courage to express them.

HORACE G. WOODY, superintendent of schools at Kokomo, has been elected superintendent of Greencastle schools in place of R. A. Ogg, who has resigned to accept the superintendency at Kokomo at an increased salary. Prof. Woody has children ready for college and suggested to Professor Ogg the idea of an exchange. He came down and conferred with the Board regarding the matter. They were all well pleased with him and upon invitation Professor Ogg went to Kokomo. The Board elected him in case Professor Woody decided to leave. The Greencastle Board had re-elected Professor Ogg. He offered his resignation and the Board unanimously elected Professor Woody to fill the vacancy.—*Greencastle Banner*.

"A fair exchange is no robbery." In this case both Kokomo and Greencastle have made money. Both gentleman rank high among superintendents.

DAVID K. GOSS has been elected superintendent of the Indianapolis schools for a fifth year at a salary of \$3,600. This election has gained more than state notoriety and its history will be of interest to many. At the first meeting in April, the annual time for electing a superintendent, the Board, consisting of eleven members, cast three votes for Mr. Goss, one for Dr. John and seven blanks. The Board then appointed a committee of three to make investigations and nominate a successor to Mr. Goss, and report in four weeks. The committee had about forty applicants, eight or nine of whom were from Indiana. The committee also canvassed the qualifications of a few persons who were not applicants. After reading more than four hundred recommendations and listening to numerous statements the committee unanimously recommended Frank B. Cooper, superintendent of the schools at West Des Moines, Iowa. The report was made May 6th. As no member had ever seen the nominee the election was postponed two weeks more and the committee was instructed to have Mr. Cooper visit Indianapolis. He came and met the board collectively and individually and made a

good impression, but when it came to an election on the first ballot Mr. Cooper received five votes, Mr. Goss three, Mr. Kendall one, and there were two blanks. On the fourth ballot Mr. Goss received six votes and was elected. To explain the inconsistency of this procedure one needs to know the make-up of the Indianapolis School Board. It is only justice to Mr. Goss to say in this connection, that much of the opposition to him arises from the fact that he is a vertebrate and that he has not yet learned how to say "no" gracefully.

MISS MARY COLGAN.

On Saturday, May 21st, Miss Mary Colgan, one of the supervising principals of the Indianapolis schools and one of the city's most valued teachers, died.

Miss Colgan had taught continuously for thirty-three years, only once during this long term of service being absent from her post, and then but for one month. She will be always remembered as a faithful, efficient, hard working, and conscientious teacher and a judicious supervisor. The schools under her care were well-managed, and the teachers who worked under and with her were always loyal to her, admiring her as a woman and loving her as a friend. Among the large army of pupils who came within her circle of influence are many now filling positions of responsibility and honor who acknowledge the great debt they owe her.

QUITMAN JACKSON.

Quitman Jackson, ex-County Superintendent of Hancock county, died at his residence in Greenfield, May 7th, 1898, after a brief but painful illness. He was forty years old at the time of his death.

The educational interests, not of his county alone, but of the State, have lost a capable and efficient worker. All his life, until within the last year, he was identified with the school work. He began as a teacher in the country schools, became principal of the Fortville, and afterward of the Charlottesville schools. He then entered the Greenfield schools as principal of the East Ward. In June, 1889, he was elected County Superintendent of Hancock county, which position he held for eight years. During the last year of his life he was a member of the law firm of Felt & Jackson. What his success might have been in the law is a matter of conjecture, but as a school-worker, in every place he was called to fill, he was faithful and efficient, and it is with the educational interests of the county and State that his name will be prominently associated, and it is among the teachers and co-workers that his memory will be most fondly cherished.

As County Superintendent he was brought into close relationship with the educational leaders of the State. Here, he won an enviable position. He was chairman of the committee that gave to the State the first uniform course of study. His work on this committee marked him as a leader, and he was elected president of the County Superintendents' State Association. He was afterwards chosen by the State Teachers' Association to represent the County Superintendents on the State Reading Circle Board. Here his deep interest in child life and his knowledge of rural educational conditions, together with his good judgment and honesty, made him a most valued member.

He was a member of the Masonic Fraternity, having reached the degree of Royal Arch Mason, and was buried with Masonic honors. He leaves a widow and five children.

His death came as a sudden shock to his host of friends, both at home and throughout the State, and it will be long before they will cease to miss his earnest work, wise counsel, and ready kindness.

BOOK TABLE.

THE CENTURY for June contains the following features of unusual interest: "*The Spanish Armada*," described and illustrated from manuscript records and the narratives of survivors, with an introduction, on the reasons for its failure, by Captain Mahan, now of the Naval Strategy Board. "*Ten Months with the Cuban Insurgents*," the experiences of a major in the Cuban army under General Garcia. "*The Confederate Torpedo Service*," by the electrician of the Torpedo Division in the Confederate navy, who laid the mine which blew up the first gun-boat ever destroyed by this means. Etc., etc.

HISTORY OF INDIANA, by W. H. Smith. Published by B. L. Blair & Co., Indianapolis. This work consists of two handsome volumes of 500 pages each, well printed and well bound. This is the most complete history of Indiana ever made, and is being received by the public with uniform approbation. The author has been a newspaper man in Indiana for most of his life, and for many years has been collecting material for his history. He has given the facts in good English and told the story in a pleasing style. He has adopted the topical instead of the chronological order, thus enabling the reader or the teacher to grasp any subject at once. The history begins with the earliest explorations by the French and comes down to the present time. It deals in one chapter with the works of the pre-historic races that once occupied this country, and rapidly sketches some of their most important works. Another chapter tells of the Indian tribes which followed the mound builders. The major portion of the work is taken up with what Indiana is to-day, and how she has been built up into a great state. Hoosiers have a right to be proud of their state and of this history of it.

BUSINESS NOTICES.

MORE successful than ever—Indianapolis Business University.

HAIR on ladies' faces, moles and other blemishes removed forever. VARIN, 25½ W. Washington St. Write or call when in the city. 1-St.

HOW TO OBTAIN ONE YEAR'S TUITION in any course of the Chautauqua plan of education free For particulars, address, Rooms 6-10, Lombard Building, Indianapolis, Ind. 4-St.

TEACHERS going to the N. E. A., to be held in Washington in July, should read the advertisement on another page. They should not fail to go by Cincinnati—the "Queen City of the West."

Indigestion

Hosford's Acid Phosphate.

This preparation by its action in promoting digestion, and as a nerve food, tends to prevent and alleviate the headache arising from a disordered stomach, or that of a nervous origin.

Dr. F. A. Roberts, Waterville, Me., says: "Have found it of great benefit in nervous headache, nervous dyspepsia and neuralgia; and think it is giving great satisfaction when it is thoroughly tried."

Descriptive pamphlet free on application to Rumford Chemical Works, Providence, R. I. FOR SALE BY ALL DRUGGISTS. Beware of Substitutes and Imitations.

THE C. H. & D., between Indianapolis and Cincinnati is notable for the fact that almost every mile of the distance is rich well improved farming country. From Hamilton to Cincinnati is a "garden spot." This is one of the most desirable routes to the N. E. A.

SCHOOL BOARDS contemplating changes can learn the address of the best Western and Eastern teachers, willing to change places, by addressing Orville Brewer, manager of the Teachers' Co-operative Association, 101 Auditorium Bldg., Chicago. We can assure all who write of confidence and honorable treatment. 2-ff.

ONE FARE TO WASHINGTON AND RETURN.—The meeting of the National Educational Association at Washington, July 7-12, offers exceptional inducements to those who wish to visit the National Capital. The Monon Route will sell tickets for one fare for the round trip, (through sleepers) with ample time to make side trips to Mount Vernon and other points of interest. Send a two cent stamp for the Monon's beautiful Washington book. Address, Frank J. Reed, G. P. A., Chicago; or Geo. W. Hayler, D. P. A., 25 W. Washington street, Indianapolis.

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VIA C. H. & D., RAILWAY.

Account National Educational Association Convention, July 7-12, Tickets on sale July 3, 4, 5 and 6; final return limit, August 30. Call at office for a guide to Washington. Tickets sold at any office to Washington and return for a single fare *plus* \$2.00, which pays Association fee. Teachers will find that this route offers more attractions than any other. Through trains with all modern conveniences twice each day. Tickets and detailed information at Union Station and City Ticket Office, 25 W. Washington St., Cordova Bldg. If you cannot call, please address Geo. W. Hayler, District Passenger Agent.

EARLY BAY VIEW ANNOUNCEMENTS.

The fact that Bay View in northern Michigan is visited by over 15,000 people every summer makes the early announcements of general interest. Besides, as a summer watering place and summer educational center, Bay View is to the west what Chautauqua is to the east. The fame of its summer University is already wide and to appear in the Assembly Programs has come to be a sort of high water mark of satisfied aspiration. For 13 years J. M. Hall has been chancellor.

Although many of the more than 500 cottages are occupied early, the season is never regarded as open until the Summer University begins. This year on July 13th, then the Assembly a week later, both closing on August 17th. The University has a faculty of over forty picked instructors, with the gifted Prof. M. Louise Jones of Kansas State Normal at the head. Four beautiful halls well equipped for efficient work house the University.

In the Academic department and school of methods, where the teachers throng, instruction is given in almost every leading branch of study. The science departments are presided over by Prof. Millis, of Lawrence University and Prof. Mitchell, of the Chicago High School. Large numbers go to study literature with Prof. Jones, and the classes in school music under Frances Clark, of Ottumwa, Iowa, and of school drawing, with Miss Stratford, of Des Moines, Iowa, are always crowded. For many years that wise teacher of teachers, Lucretia Willard Treat, has been at the head of the Kindergarten Training School, and Miss Murray, from the Chicago Schools,

has built up here the largest Sloyd School in the country. This year the University captures one of Detroit's most distinguished educators, Miss Harriet Scott, long at the head of the training school, to fill its department of primary methods. Another teacher of rich scholarship and teaching force secured, is Professor R. W. Moore, of Colgate University, for German; and the distinguished French woman, Professor P. Marriot Davies, at Purdue, for French. There are fine privileges in Latin, Greek and Hebrew, and this year a department of civics.

Next in point of attendance is the Bible school which last year enrolled 150, from fifteen states. This is not a conference, nor an institute, but a school whose excellence is not enough known. The dean is Dr. F. K. Sanders, a remarkable teacher, filling at Yale the first Bible chair in America. This year a valuable faculty accession is Dr. George S. Robinson, recently called from Knox College, Toronto, to the McCormick Theological Seminary.

Perhaps of most popular interest, is the Conservatory of Music, because Mr. Wilson G. Smith, the pianist, whose compositions are on every piano in the country, is director and teacher; and Mr. Frank E. Morse, of Boston, the voice teacher of Mrs. Genevieve Clark Wilson and other famous singers, is a teacher here. Mr. William Lewis, of Chicago, the teacher of Maude Powell and Grace Ensminger, the greatest women violinists in this country, fills the violin chair, and Mr. E. H. Hovey, the mandolin and banjo department.

Professor A. H. Merrill, to whom Chautauqua paid many hundreds of dollars for a short engagement, is here building up a great school in oratory, for teachers particularly, and readers.

Here, too, the wealthy Chicago Art Institute is represented by one of its finest teachers, Mr. Frank Phenix, at the head of the art school, teaching drawing and painting.

There is also a very large school of physical culture, and Miss Keller, who is fast winning the teaching world to vertical writing instructs here.

THE ASSEMBLY.

The Assembly programs at Bay View have made a reputation for educational and popular qualities and the utter absence of the sensational, too often used elsewhere to draw. In the long list of lecturers who will be heard this year, many of them five or six times, are Mrs. Maude Ballington Booth, George R. Wendling, Prof. J. B. DeMotte, Dr. A. E. Winship, Hon. William J. Bryan, Miss Vandelia Varnum, Dr. R. S. McArthur, Rev. Edward S. Ninde, Gen. O. O. Howard, Dr. J. H. Potts, Mr. Jacob A. Riis, Dr. Phillip S. Moxom, Prof. Graham Taylor, Dr. S. Parks Cadman, and J. B. Bengough.

In music there will be Cecelia Eppinghausen Bailey, Frederick H. Root, Prof. C. C. Case, Harold Jarvis, the Misses Leach, the banjo-vocalist of New York, Grace Ensminger, the violinist, Indiana University Glee Club, Glen P. Hall, Virginia Eastman and Mme Annie Gray, of Scotland.

Grace Duffy Boylan, the authoress, Ida Bently, Isabel Garghill and others are among the readers.

There are large department gatherings, especially noteworthy being the W. C. T. U. Institute, conducted by Mrs. L. S. Rounds, president of the Illinois Union; and the Woman's Council, Mrs. Irma T. Jones, leader. Many women of prominence participate in their ten days' meetings.

The Bay View Reading Circle, which is Bay View's winter work and has been quietly extending over the country until it now enrolls nearly 7,000 students, has its summer headquarters here with delightful programs of foreign tourist conferences, book reviews, lectures, recitals, parties, excursions and its Processional, or Graduation Day. This new factor at Bay View is becoming one of great interest.

The full announcements from which the above facts are gleaned, can always be secured by addressing J. M. HALL, Flint, Mich., after June 15, Bay View.

THE CHESAPEAKE AND OHIO RAILWAY running from Cincinnati to Washington, D. C., passes through many places of interest and its scenery in many places is simply grand. The Big Four runs in connection with this road. See Advertisement on another page.

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INDIANA " SCHOOL * JOURNAL

VOL. XLIII.

JULY, 1898.

NUMBER 7.

*SOCIAL FUNCTION OF UNITED STATES HISTORY.

PROFESSOR JOHN BACH MCMASTER, UNIVERSITY OF
PENNSYLVANIA.

On the principle that a shoemaker should stick to his last, my remarks will be confined to the history of our own country.

This history is commonly divided into a series of periods, during each of which events of a particular kind so predominated as to give a distinct characteristic; as, the period of discovery and exploration; the period of settlement and occupation; the period of struggle for supremacy between the colonizers ending in the dominance of the English race; the period of struggle of the English colonies for the rights of self government; the war for independence when no other means of securing these rights remained; and the long struggle for a government ending with the establishment of the different State and Federal Constitutions. This may be regarded as the close of the first series of historical periods. An epoch has occurred, a new nation, a new political organization, has been added to the family of nations. The United States of America is permanently established.

Looking back over this series of periods it is quite apparent that in some of them the acts of individual men, and in others of small bodies of men, predominate. This is especially true of the periods of discovery and exploration, occupation and settlement, which have in consequence been described entirely from a bio-

*From the Fourth Year Book of the National Herbart Society.

graphical point of view. The early history of our country as usually told is little more than a narrative of the exploits of Columbus, Ponce de Leon, De Soto, Champlain, Marquette, Joliet, La Salle, John Smith and a host of other men who stand out as discoverers and explorers. As definite information of their doings could not always be had, or when attainable was too dry or too meaningless for the use of early historians, every attractive incident of a personal kind has been seized on and raised to the dignity of national history, and because they are picturesque, have been given undue importance to the exclusion of what is really essential.

The economic and industrial condition of Europe which was the direct cause of the period of discovery; the fact that America was never sought, but stumbled on; that when found it was not wanted; that much of its exploration was due to a persistent effort to find a way around it, to discover a northwest or southwest passage to India, are lost sight of in the account of the doings of particular men. It is true that a history of these early times must be largely biographical; that the period was pre-eminently one of adventure; that beyond the incidents furnished by these adventures the material is scant, yet they ought to be subordinated to what is really of historical importance. The motive for discovery; the effect of discovery on the geographical ideas of the time; the reasons why the four great maritime powers of Europe came into possession of our country; why the Dutch acquired the Hudson, why the Spaniards occupied our gulf coast, the English the Atlantic coast, and the French the Great Lakes and the Mississippi, and the profound and lasting influence this particular arrangement of European settlers had on our later history,—these are the things it concerns us to know, rather than the doings of particular men and the Indian wars of particular colonies.

A knowledge of the industrial and economic condition of Europe and Great Britain, again, is necessary to a correct understanding of the period of colonization, what drove the settlers to Jamestown and Quebec, what sort of people they were, what customs, usages, institutions, political ideas they brought and planted in the new world, is all-important. These are the things which determined the future of the State far more than the character of any man. Yet the early history of the colonies is too

often a story of Indian wars, religious disputes and biographical incident. The knowledge of these times which many a child carries away with him from school consists of the stories of the rescue of Smith by Pocahontas; of Endicott cutting the cross from the flag; of Bradford sending to Canonicus the snake skin stuffed with powder and ball; of Penn buying land from the Indians; of King Philip's War; of Roger Williams driven into exile; of the Salem witch-burnings, and of Bacon's so-called rebellion. The steady movement of the English westward from the Atlantic; the spread of the French into the valley of the Mississippi and their occupation of it to the headwaters of the Ohio; the great difference in the manner of occupation by these two peoples, the French building forts and taking military occupation the English building towns, opening up farms and taking possession by actual settlement, the effect this difference had on the long struggle for possession, are rarely if ever presented to the school boy. That great struggle between the French and the English for the possession of the continent is generally presented as a series of detached wars under such unmeaning names as King William's War, Queen Anne's War, King George's War. As records of burnings, slaughterings, massacres, Indian atrocities, they are simply horrid, and deserve very little place in our colonial history. Their true significance as steps leading up inevitably to a great struggle is the only justification for their mention.

So far in our struggle for independence, the military and naval story has been told over and over again till every American worthy of the name knows by heart the list of battles and the names of the great soldiers, sailors and statesmen. But where shall we turn for an account of the doings and the sufferings of American people during that struggle? To represent the Stamp Tax as the cause of the rebellion of the colonies is to falsify history. Our forefathers rebelled because they had ceased to be English; because they had become a distinct and separate people; because they could no longer live under the English system of government; because they must have a government of their own making, embodying their own ideas. Yet the economical, the industrial, the political conditions which slowly but surely brought this about are passed over in silence, and the whole history of a hundred years of colonial life is misrepresented. Great Britain is held up in our school books as a tyrant and the school boy is

taught to hate the only people on the face of the earth to whom we are bound by ties of race, by ties of language, customs, institutions, the only people with whom it is possible for us to ever form a real and lasting alliance.

The establishment of our State and federal governments again cannot be understood without a knowledge of the life of the people. Where did we get the idea of a written constitution? What is the meaning and purpose of such a document? The federal constitution in particular is the only embodiment of the industrial and economic experience of the people. The old confederation went to pieces because each State had power to coin money, to issue bills of credit and make paper money legal tender; to regulate foreign trade and inter-state trade; because Congress had no power to enforce obedience to its ordinances. The provisions, therefore, that Congress shall have *sole* power to regulate trade between the States and with foreign nations; that all laws shall be uniform throughout the Union; that no State shall coin money, or issue bills of credit, or make anything but gold or silver a legal tender, are the direct result of a bitter industrial experience. The constitution was not, as Mr. Gladstone says, "struck out," "in a given time." It grew out of business conditions; it was a business necessity; it was the product of the experience and daily life of a thoroughly practical people, and cannot be understood without a knowledge of that experience.

With the adoption of the constitution we began our career as a nation, a career which is without a parallel in the world's history, and is to us a source of just pride and satisfaction. No American would ever seek to dull the lustre of our military and naval annals, to forget the names of the men who led us to victory on land and sea, or cease to draw lessons of patriotism and devotion to our country from the story of heroism and sacrifice made by tens of thousands of men who laid down their lives that we might be what we are. The names and deeds of Greene and Gates and Lincoln and Knox, Paul Jones and Hull and Bainbridge and Decatur and Truxton, should be as familiar to every American boy as those of Washington and Jefferson. But he should be distinctly given to understand that the lives and deeds of the heroes of war do not comprise, but are comprised in, the history of the United States.

From the moment the period is reached when our countrymen

obtained a stable form of government, from the moment when the constitution became the supreme law of the land, our national history should be presented to the student as the growth and development of a marvelous people. He should see our country as it was when Washington was first inaugurated, a country vast in extent with its people gathered on a narrow strip along the seaboard and just beginning their great march westward; he should see them destitute of manufactures, of machines, of great industries, of easy and rapid means of communication; he should see the arts and sciences in a rudimentary state, and he should see the differences in habits, customs, occupations which were peculiar to the people of the Eastern States, the Middle States and the South. The attention of the student should be called to the fact that innumerable trades, occupations, industries, professions, callings that now afford a livelihood to millions of people had then no existence; that articles and conveniences with which he is perfectly familiar and which have come to be looked on as necessities of life were then unknown, and that the lot of every man in every walk of life was far harder than at present.

When this condition has been shown and understood, the boy should follow step by step the wonderful progress from what was to what is. He should see our people hurrying westward in three great streams, pushing the frontier before them across the Mississippi Valley, across the Mississippi River, over the great plains to the Pacific, building cities, founding States, developing the resources of our country. He should see the northern stream engaged in a thousand forms of diversified industry, and the southern stream ignoring commerce and manufactures and devoting its energy to growing cotton and tobacco; and he should be made to see how from these two opposite economic conditions grew in time two separate and distinct people, with utterly different ideas, institutions, customs and purposes in life, and when this has been made clear to him he will understand the Civil War. To present such a history in slices four-years thick and labelled with the names of Presidents, or as a dry record of Congress and the doings of the political leaders of the hour is to destroy its meaning and make it valueless. To tell a child that Fulton invented the steamboat, Howe the sewing machine, Morse the telegraph, Goodyear vulcanized india rubber, Hoe the steam printing press, Bell the telephone, is idle if the story stops there.

The thing to be impressed on him is that these great inventions and discoveries, and the leading inventions and discoveries of the nineteenth century, have bettered the condition of civilized man everywhere, and are contributions to human welfare made by America. We are a people animated by the highest and noblest ideals of humanity, of the rights of man, and no history of our country is rightly taught which does not set this forth. Above all it should be so taught as to destroy that baneful belief that we have degenerated from our forefathers. There is no land where the people are so prosperous, so happy, so intelligent, so bent on doing what is just and right as in United States.

PLOT ANALYSIS OF IVANHOE.

JENNIE PETERS.

[This plot was worked out by a member of the senior class in Monticello high school. After two weeks of recitation, each member of the class was asked to write a paper giving an analysis of the story. Mr. J. E. McMullan, the teacher, has also an ingenious and original plan of representing the relations of characters and actors by a system of lines and blocks.—EDITOR.]

The plot of *Ivanhoe* while very complex is well unified. The author found a historical setting for his novel in England about the close of the twelfth century. At this time King Richard was away in a foreign prison and his brother John with a number of powerful nobles had formed a plot to usurp the throne. The bitter feeling between the Norman conquerers and the conquered Saxons was at this time strong. The nobility of England was almost exclusively Norman while the Saxons, with a few exceptions, made up the working class. Bands of Saxons, incensed by the Norman tyranny, roamed through the forests, led by Robin Hood, the Locksley of the story. These were the days of chivalry—of honor to the ones victorious in arms.

This setting is an appropriate one for the theme of the author which is to show the union of the two races, Saxon and Norman.

A third nationality, the Jews, hated by both Saxons and Normans, is presented in the characters, Isaac and Rebecca.

Cedric, Rowena, *Ivanhoe*, Athelstane and Locksley are among the principal Saxons while Richard, Prince John, Bois-Guilbert, DeBracy and Fitzurse are representatives of the Norman race.

There seem to be four stories in the novel, one of *Ivanhoe* and Rowena; of Bois-Guilbert and Rebecca; of the rival parties

of Prince John and King Richard ; and one of the Saxon outlaws. Of these the first is the principal one, but all are closely linked together.

The Norman Richard and the Saxon Ivanhoe have a common purpose—to place Richard on his rightful throne and to secure the union of the Saxon and Norman races. With Ivanhoe this purpose is a means to the accomplishment of a second purpose—to marry Rowena.

We first see Ivanhoe, disguised as a Palmer, in the home of Cedric. This is the first great meeting place and here, besides the Palmer, are the Normans, Prior Aymer and Bois Guilbert (drawn there by Rowena's beauty,) and also the Jew, Isaac. Here, by a kind favor, Ivanhoe wins the good will of Isaac, who in return rewards him by the gift of a war horse fully equipped for the tournament.

This tournament is the second great meeting place, and people of every race and rank are present. Here we first learn that Richard is in England—he is at the tournament disguised as the Black Knight and by aiding Ivanhoe's band wins the good will of the Saxons.

The banquet given at the close of the tournament by Prince John is a third pool in the plot. Both Saxons and Normans were present—for the chief purpose of the feast was to win the good will of the Saxon leaders, Cedric and Athelstane. Had this purpose been accomplished it would have been a valuable aid to the Prince John conspiracy. But the sarcastic remarks of the Normans only alienated the Saxons more. Here we learn of the plan of DeBracy and Bois-Guilbert to capture Cedric's company as they returned to their homes and thus secure Rowena.

Meanwhile Ivanhoe, wounded in the tournament, was cared for by the Jew, Isaac, and his daughter Rebecca—thus the link already formed between Saxon and Jew is strengthened. Yet this event is the means by which Ivanhoe falls into the hands of his enemies in the forest. For Rebecca and Isaac with Ivanhoe, on their way to York, join the company of Cedric and are, with them, captured by DeBracy and his company in the forest.

The castle of Torquilstone, where the prisoners were confined, is one of the most important pools in the plot. All the different parts or stories of the novel are represented in this meeting place. It is here that we see DeBracy foiled in his purpose—by his cap-

ture and the death of Front De Boeuf the Prince John conspiracy loses two of its strong supporters. Bois-Guilbert escapes to Templestowe with Rebecca. A Norman noble, Richard the Black Knight, joins with the Saxon outlaws and rescues the prisoners. This unusual act forms a strong link between the Black Knight and the outlaws. It is here, too, that Athelstane is struck down and the Saxons lose their noble of highest rank.

The meeting in the forest after the capture of Torquilstowe is also important. It is then that Cedric promises to grant any boon which the Black Knight may ask—a promise which proves more important than Cedric imagined at the time. Here, too, the captive De Bracy is released by the Black Knight, Richard, and carries to John and his party the news that he has seen and spoken with Richard. Thus he formed an important link between the two rival parties.

During the same day there is another meeting place in a different part of the forest. Here the party of Prince John, represented by Fitzurse and his companions are in conflict with the Black Knight, Richard, aided alone by the jester Wamba. Through the timely aid of the yeomen the latter is victorious. Here for the first time the Black Knight makes himself known as the King of England; but his previous relations with the yeomen were such that they immediately gave him their allegiance. In this act is seen a great step toward the realization of the original purpose for before this time the outlaws were perhaps the most formidable class of Saxons.

At Coningsburg, the next meeting place, the Black Knight reveals to Cedric that he is the King of England. Cedric at first refuses to acknowledge his right to the throne. When Richard reminds him that, since the death of Athelstane, the Saxons have no representative to claim the throne, Cedric, though angered can no longer refuse to recognize him as King. He says: "Thou sayst well Sir King, for King I own thou art, and will be despite my feeble opposition." Here Richard asks and receives from Cedric the promised boon—which is that Ivanhoe be forgiven. Athelstane, recovering from his swoon, appears on the scene at this time and gives his allegiance to Richard and, further, renounces all claims to Rowena. Thus he puts an end to Cedric's cherished hope of restoring the Saxons to power and removes all obstacles in the way of the marriage of Ivanhoe and Rowena.

It is at Templestowe that the action of the novel is brought to a culmination. Ivanhoe, appearing as the champion of Rebecca, who has been condemned as a sorceress, succeeds in rescuing her from death. Bois-Guilbert dies overcome by conflicting passions. Richard arrives at this point and puts an end to the conspiracy against him. The Malvoisin brothers are executed, charged with high treason,—a fitting nemesis to the life they have lead. Others of the conspirators are banished but Prince John was forgiven.

Every obstacle in the way of Ivanhoe had now been removed. He was now free to marry Rowena. In their marriage we will see the realization of the author's theme.

In the meeting at the home of Rowena, after her marriage, we again see the beautiful Rebecca and learn of her decision to leave England. This is a necessary part of the plot for the author's purpose is to show the union of the Normans and Saxons. Since the Jews are not included in this union it becomes necessary to take them out of the country.

In this novel are shown many phases of life. We see the life of chivalry in the tournament at Ashly with its gaily attired Knights and their attending squires and in the proud display of its encounters. The respective careers of Richard, Ivanhoe, Bois-Guilbert and other Knights, also bring out this phase of life.

Religious life is also shown. In the Templars we see a false religion. While their order was bound by strict vows, they openly violated them and led luxurious, dissipated and immoral lives. Bois-Guilbert was a typical member of this order. The religion of Rebecca was pure but it is in the Palmer that we see the true religion.

In the home of Cedric with its rude magnificence, the castle of Coningsburg, and the luxurious home of the Jew is shown the domestic life of the times.

Criminal life is seen in the careers of the Malvoisin brothers, Bois-Guilbert and the Saxon outlaws.

All these phases of life form a part of the back-ground of the story.

"I expect to pass through this world but once ; if, therefore, there is any kindness I can show, or any good thing I can do to my fellow human being, let me *do it now*; let me not neglect or delay it ; for I shall not pass this way again."

VERTICAL OR SLANT WRITING?

M. C. JENSEN.

The article in the April number of the SCHOOL JOURNAL, advocating slant writing, contains apparently strong arguments in favor of the slant system as compared with the vertical system. A careful and impartial consideration, however, in regard to a few points may lead the unbiased reader to judge impartially concerning the comparative merits of the two systems.

The writer commences his argument with the generalization that "The higher the grade of pupils and the more haste required in written work, the greater the tendency to slant right or left; however, in nearly all cases to the right . . ." It would seem that the impression which the writer wishes to make is that the tendency is natural. The generalization is based on observations of writing "in the business world, among clerks, book-keepers and telegraph operators; and "it has been found by actual tests that the writing of 95 per cent. of them slant." "In another test of 200 business signatures collected from New York City, 98 per cent. of them slant; 96 per cent. of them slanting to the right." It may be pertinent here to ask: How large a per cent. of the whole army of business world, the clerks, the book-keepers, the telegraph operators, the captains of industries, at the present time have received any training in vertical writings? On the contrary have they not nearly all, at least 96 per cent. been trained in slant writing from the very beginning of and throughout their school course? Similar questions may appropriately be asked concerning pupils in the upper grammar grades and high school of the Indianapolis schools, the Richmond schools and the Brooklyn, New York, Boys' High School, which are specified. The assertion may be ventured without incurring much risk of contradiction that the four pupils, the fac-similes of whose vertical writing appear in the JOURNAL were trained in slant writing, at least while in the primary grades—the most plastic period in the school life, and that their experience in vertical writing was acquired after the habit of slant writing had crystallized. On the other hand the five fac-similes of the specimens of slant writing indicate strongly that those pupils have always practiced slant writing.

In order to judge fairly of each system the element of time in beginning the training and practice of a system is an important factor. In this case that factor has either been omitted or ignored. "Prepared specimens of writing from the primary grades" would have been more convincing and a fairer "criterion by which to judge" the comparative merits of the two systems than "the regular written work done under thought pressure in preparing lessons, particularly in the upper grammar grades and in the first year high school," opinions to the contrary notwithstanding.

McCoy's, Ind.

APPLICATIONS OF CHILD-STUDY RESULTS.

SANFORD BELL, PROFESSOR OF PEDAGOGY, NORTHERN INDIANA
NORMAL SCHOOL.

A good house wife can go to the White House cook-book and follow a recipe and bake a good cake. An expert chemist can analyze into their constituent elements the eggs, butter, sugar, flour, baking powder, etc., tell you all about the effect of each upon the others, explain scientifically the fermentation that makes the cake so light and then bake one only fit for the Spaniards who blew up the Maine. These illustrations point to two kinds of mind dealing with truth. One may understand it only in a general way, but may be able to apply it in accomplishing good results. The other may be able to explain the minutest item exhaustively and be utterly incapable of making its practical application. This is right. It is in perfect harmony with the great law of the division of labor. Some people must discover and expose the nature of truth. Others must work out its application to practical life. The school teacher as a rule belongs to the latter class. She must accept the truth established by the scientist and proceed to make use of its educational bearing. She must understand the truth in a general way; the more through her understanding the better. But she does not have to go through what the scientist went through in coming to his conclusions. That would take her a lifetime, and is incompatible with ordinary school teaching. The school teacher cannot teach school and at the same time carry on much research work in the

domains of science. It is right for her to take the scientist's word for much truth. She has to have faith in her own intelligence, she can have faith in his. There is much more truth about child-nature known to-day than is organized and put into working order. What the common school teacher now needs is to have pointed out the truth already known that is of pedagogical worth and its application shown to her every-day work.

I wish here to indicate some of these truths and also to hint at their practical application. The results thus far obtained are mainly along the two lines of the child's physical and mental makeup as he is. Under the head of the physical the thing that undoubtedly ranks first in importance is the child's general health. The teacher should take note of the status of the health of each pupil and regulate the pupils' work accordingly. If twenty problems in arithmetic are the reasonable task for the vigorous healthy child, the teacher is doing a grave injustice in demanding of the child of impaired health the performance of the entire task. It is criminally wrong to keep in after school hours or during recess periods a child who is physically unable to meet the regular class requirements, and force him to complete the assigned work. As a rule these children are the very ones who most need the relaxation of the recess or the freedom of dismissal. After all our efforts at uniformity through strict classification our entire treatment of children must be individual. Justice is found only in partiality; partiality in the sense that the individuality of each child determines the treatment given him. The teacher should not only vigilantly protect the health of each child as much as she can by adjusting the work to the child's ability, but she must sometimes advise the parents to remove the child from school even at the expense of a lowered record of average attendance and a mutilation of honor rolls both of which better subserve the purposes of unprincipled physicians and undertakers than those of rational teaching. The facts relative to the phenomena of fatigue are of great pedagogical significance. Pupils must not be over stimulated. Precocity and rapid progress in children are too often bought at the expense of arrested growth, a shattered nervous system and consequent imbecility and mediocrity in after life. Parents and teachers both pay too much for the whistle in these regards. I very much doubt the wisdom of stimulating young children to take their books home

at night. I know in many cases it should be positively forbidden. When the concession is made it is to be in favor of the child of unusually vigorous physique and steady nerves. The matters of food, clothing and exercise are matters that every teacher must look after. She may be powerless in the first two except as she may tactfully advise parents. No she is not. There are many hygienic truths which she can impress upon the children as to the regularity of eating and their manner of properly masticating their food and regulating their exercise immediately after eating. She can see that the clothing which the child has is made to count for the most in protecting him. She can see that wraps are carefully put on before the child leaves the room on very cold days. She can see that children do not sit all day with damp feet. She can, in many ways, protect the child from catching cold which is so prolific in begetting a host of other disorders. She can *demand* that the clothing be clean. She can and must demand that the entire person of the child be clean. This is almost too obnoxious a subject to discuss in detail but is one which the teacher can not afford to neglect. Clean faces, clean combed heads, *clean mouths*, clean hands and bodies in clean clothing are things that mere decency demands and has a right to expect. Here as elsewhere the teacher must use consummate tact. As to exercise, it may be excessive or the opposite, or taken at the wrong time. This hint is sufficient.

The matters of hygienic ventilation, lighting, heating and seating are things that every teacher needs to observe every day in the school year. How much stupidity, drowsiness, headache, irritability and ill health is directly traceable to vitiated air coming from improper ventilation? How many colds with resultant catarrh, pneumonia, tonsillitis, disturbed digestion and even consumption are directly traceable to the same source? Rounded shoulders, bowed legs, curved spines and other asymmetries of body are all too common and in too many cases can directly be traced to improper seating. Aside from the attendant discomfort of improper heating come the more remote colds with their concurrence of attendant ailments. As to the lighting, its direct bearing is, of course, upon the eye. I need not stop to argue with teachers the importance of taking care of this most important of the senses. Every teacher should be perfectly versed in the physiology and hygiene of the eye and consciously

conform to every truth involving its health functioning. It is startling to know that on an average from twenty-five to thirty per cent. of our school children have defective sight, and a scarcely smaller percentage have defective hearing. Are not the truths about the eye, the ear, mouth and nose such as have a practical application in every school-room in our land? Can not the conditions be made so favorable that we will have fewer defectives, and can not the treatment of those who are already unfortunate be always humane? Many of these truths have long been known by our educators and our people in general. Their discovery is not accredited to the recent child-study movement. But the utter dependence of the mind upon the bodily conditions has been more completely and satisfactorily uncovered by recent researches in physiology, psychology, child-study, and the results of these researches have awakened educators and parent to the vast *importance* of such truths. I am sorry that time and space both forbid my entering upon the truths of the child's mental makeup that are of practical pedagogical significance. I have only touched a few of the truths about his physique and have touched these unsatisfactorily. Work out the others yourself. Work them out, and report to me all the ways in which the results of the child-study movement have been practically helpful to you. You will indeed do me a very great favor in testifying. All that is needed is a demonstration of the fact that such results have been obtained, and I am waiting for the demonstration.

Valparaiso.

Is true freedom but to break
Fetters for our own dear sake,
And, with leathern hearts, forget
That we owe mankind a debt?

No ! true freedom is to share
All the chains our brothers wear,
And with heart and hand to be
Earnest to make others free !

—Lowell.

DEPARTMENT OF PEDAGOGY.

THE THEORY OF THE CULTURE EPOCHS.

ANNA BROCHHAUSEN—CRITIC TEACHER, INDIANAPOLIS.

"One could be genuinely 'esthetic didactic' if he could pass with his pupils before all that is worth feeling, or if he could bring it before them at exactly the moment in which it culminates, and when they are most highly sensitive," says Goethe. Again he says, "The youth must always begin anew at the beginning and traverse the epochs of the world's culture." And is it not this thought which Emerson expresses when he says, "Each one is an entire emblem of human life * * * * and each one must somehow accommodate the whole man and recite all his destiny?"

This idea expressed by several poets, philosophers, theologians and scientists, as well as pedagogues, the Herbartians have tried to establish as an educational theory. To this class of educators, modern pedagogy owes a great deal. At the mere mention of Herbart's name, a number of terms frequently met with in modern works of pedagogy are called into consciousness; *e. g.*, interest, apperception, the five formal steps, concentration, the culture epochs—to each of which he has given a special significance. True, they have given rise to serious discussions as to their real meaning, yet no one can read Herbart's theory without being greatly benefited thereby, and he certainly creates in his readers a vital interest which leads to a further study of the subject—the Herbart interest.

A clear idea of apperception is needed to thoroughly understand the Culture Epoch theory, since the latter is based upon the apperceptive ability of the mind. The Culture Epoch theory claims that every man has passed through stages of development; that at a certain stage, certain concepts are more easily apperceived than at another, and therefore, the course of study should be so arranged that the material presented meets the conditions of apperception, interest, and volition present in the child at any one stage of its development.

It also claims that humanity has passed through stages of development and then tries to form an analogy between the devel-

opment of the individual and that of man. It aims in this way to solve the question of the course of study ; for, if this analogy is true, then that which characterized a certain age in the development of man should offer the best material of instruction for the corresponding age in the development of the individual.

Herbart himself did not work out this thought in a curriculum as fully as it has since been done by some of his followers. The inspiration to its full application, doubtless, came from the many suggestions which he makes along this line. His plan of instruction in the Seminar School at Konigsberg and also the one which he followed in the education of the children of Herrn von Steiger give evidence of the Culture Epoch theory in their formation.

Making the development of a moral character the aim of education—which aim he states is, “ that the ideas of the right and good in all their clearness and purity may become the essential object of will ; that the innermost, intrinsic contents of the character—the very heart of the personality—shall determine itself according to these ideas, putting back all arbitrary impulses—this and nothing else is the aim of moral culture ”—he turns to literature and history as the chief means in realizing this aim. Each stage of human development is described in history, and the imagination has embodied it in literature. Since each child lives through in little what the race has passed through in large, instruction must be made to reveal to the pupil the moral order of the world, by keeping in close touch with a few fundamental ethical ideals. Not only must it furnish this insight, but it must so touch the personality of the child, that a permanent right disposition toward all men may result. Therefore, the making of the curriculum is a work of greatest importance, particularly when viewed with the Herbart psychology in mind. A critical study of the child's power of apperception is the only reliable guide to the selection of the subject matter.

Herbart gave expression to similar thoughts as these in his letters to Herrn von Steiger, and speaking of Pestalozzi's work, he writes, “ I have long held that the sole and genuine root of instruction is a feeling of clear comprehension. And a perfect regularity in the sequence of studies adapted to all requirements was to me the ideal which I looked upon as the omnipresent means of securing to all instruction its true efficacy. It was the

discovery of this sequence, of the arrangement and co-ordination of what was to be learned contemporaneously, and what consecutively which formed as I understood it, Pestalozzi's chief aim."

When in 1809, he accepted the call to Konigsberg, he immediately set about to organize a pedagogical seminary, where in small classes, the students might see his principles applied, and they themselves have some experience in their application. He applied the theory of the culture epochs only to the humanistic branches of instruction.

The beginning was made with Homer's "Odyssey." Why? "In order that the heroic impulses of boyhood may neither disappear without serving a purpose, nor degenerate, but rather lead on to the period of reason. They need an ideal presentation of such men as achieve what the boy would achieve, and who, at the same time, reveal the more suitably the transition of a higher order." He says, too, "The trunk of all European culture grew in the land of the Hellenes." Thus he placed the boyhood of the child parallel to the boyhood of the race. To the child the past is the true present.

The further course of development of the curriculum he has merely indicated.

Greek was taught the boys from eight to ten. Homer's "Odyssey," "Herodotus," and "Xenophon" were taken up in order. The teacher prepared the pupils in the historical and geographical details of the book, and then translated it with them, afterwards analyzing, in order to gain a knowledge of the elements of grammar. After "Xenophon," Latin was begun with Virgil's "Æneid." In about the pupil's fourteenth year as soon as Cæsar could be fluently read, Latin syntax was begun. Then followed the translation of Homer's "Iliad, and afterward Plato and Cicero were read. Thus Herbart placed Greek history and language at the beginning of his course, Roman history and language in the middle, while at the close, modern history and language were brought in.

This school of Herbart closed in 1833. The thought it embodied was kept alive, however, by Brzoska's publication, "The Necessity of a Pedagogical Seminary at the University," in 1836.

In 1862 Ziller opened one in Leipzig. He has probably done more than any other one to carry out the culture epoch theory

suggested by Herbart. His principles are the amplification of the suggestive thoughts received from his teacher, his practice the embodiment of these principles. He worked out fully the idea of the culture epochs for the eight school years, and his course has been a source of great help to Herbartians.

He expresses two fundamental principles in the formation of the curriculum: *First*. The relative ease of acquisition—the choice must rest upon the nature of the child. His developing personality must be the guide, so that the process of apperception may take place with ease and answer to an inner need.

Second. The logical order of the subject matter. This logical order in the central subject must be developed according to the sequence demanded by the culture epochs. Language, being this central subject, Ziller justifies his course as follows: "All history, and in fact, the entire cultural development both of a single people and of all mankind, is stored up chiefly in the masterpieces of language; and the chief epochs of this development quite accord with the chief stages in the individual development of the pupil. Hence, the development of the pupil can not be furthered better than by drawing his mental nourishment from the universal products of culture as deposited in literature." (*Allgemeine Pädagogik*, Dritte Auflage, S. 214). Accordingly his course is:

First school year—The Epic Folklore Stories.

Second school year—The Story of Robinson Crusoe.

Third school year—The History of the Patriarchs.

Fourth school year—The Times of the Judges.

Fifth school year—The History of the Kings.

Sixth school year—The Life of Christ.

Seventh school year—The History of the Apostles.

Eighth school year—The History of the Reformation and catechism.

The reason for such a sequence is found in the child's mental development. Despite all individual differences, the normal condition of a child entering school at the age of six, is characterized by the predominant activity of the imagination. All nature is to him a living intelligence, a breathing soul. He talks to a stone, or a piece of wood, as if it thought and felt as he does. When in all his life does one enjoy the fairy tale more than at this period? He sees in the poetic conception of the world expressed therein,

the embodiment of his own feeling. It is the product of the fancy of humanity in its childhood period. Its spirit, therefore, is in complete harmony with the innermost being of the child; hence, the ease with which he grasps the fairy tale. No further explanation is needed for his desire and longing to hear it. In the Year Book of the Society of Scientific Pedagogy, Ziller says of fairy tales, "They are adapted as is nothing else to the individuality of the child, and especially to the predominating faculty of the imagination which is, by all means to be cultivated, since in this are rooted all the strivings. The child contemplates them with delight, for he himself rises, as do the fairy tales, above the conditions of reality, he vivifies the lifeless, he animates the soulless, he associates with all the world as with his equals, and loses himself in adventurous impossibilities. Thus to favor the child-like view of things can not react harmfully upon him, because the fairy tale contains also an abundance of objective, rational—not only esthetic, but also ethical notions and principles which lead far beyond the sphere of the imagination."

Rein says: "The genuine fairy tale always represents, in the play of the imagination, a deep moral content; for its root is the poetic side of the mind, which clothes a higher truth in invisible shapes, and delivers it in the form of a story. The fairy tale hides a multitude of ethical concepts, which lead beyond the sphere of the imagination."

The second school year is looked upon as an age of transition—a transition from the world of fancy to that of reality. He no longer enters into the life of the fairy tale with undoubting faith, but now the teacher is met with the questions, "Is that a true story?" "Did that really happen?" or "That can't be so, a tree can't talk." He begins to be conscious of the limitations of time and space.

The wilful play of the fancy is arrested by the growing consciousness of the realities of life. Yet the transition is very gradual, the imagination still plays a prominent part in the life of the child. Herbartians consider the story of "Robinson Crusoe" peculiarly adapted to this stage of the child's mental development. The extraordinary setting of the story satisfies the imagination of the child, while the concepts of cause and effect introduced, satisfy his power of reasoning at this stage. The bitter need of Robinson appeals to the child's sympathy and arouses in

him a desire to exercise his own ingenuity. It prepares him for a better understanding of history proper.

Ziller remarks that "this creation of the imagination reminds one of that prehistoric time, when man first laboriously struggling and at first unassisted by any social connection, raised himself above external nature, in order to control and use it for his purposes; of that time, when by the greatest exertions, the very simplest and most necessary experiences and inventions were made, whose significance is so easily obscured by the habit of constant use, and without which it would yet have been impossible for the human mind to cast a quiet glance upon the social ideas, whose realization in view of his historical development, becomes his duty."

All are familiar with the great value which Rousseau attributed to this story in the education of Emile.

Prof. Hettner describes it as "one picture developing before us, so large and mighty that here again we survey the gradual development of mankind."

Arno Fuchs asserts: "That out of the realm of mythology penetrates the sound of a wonderful fountain, whose bubbling waves lend new life to all who bathe therein and drink therefrom. It transforms grief-encumbered age to fresh, ardent youth * * * * If it is possible to name the freshest, strongest, and most reanimating of these fountains, which has exercised an equally wonderful power over the majority of the thinking human race, it is the remembrance of age in the youthful enjoyment of Robinson."

In the third school year the child is led into the history of the patriarchs as the first representation of human culture; in the fourth to the epochs of heroes, as represented in the times of the judges; in the fifth to the epoch of an ordered national life under kings.

Parallel with the Bible history, the history of Germany is begun in the third school year. Here the Thuringian legends are taken up. The story of Siegfried is given with the history of the judges. Charlemagne, Henry I, Frederick Barbarossa, Rudolph of Hapsburg, are taken up with the Bible history of the Kings. With the Life of Jesus, that of the Reformer, Luther, is studied, bringing out the preservation and strengthening of protestantism.

Again the above epochs in the social and cultural development

of the Jewish people, seem to Ziller, to correspond to the development of the individual in his social relation.

First, a child must learn to subject himself unquestioningly to authority in the community, even though it is at first without reflection, and in that pure childish trust which he very early manifests towards his parents. This he finds in the patriarchal state, which is but an extension of the family relations. The members trustfully subjected themselves to a chief, as children to parents, and except in extreme cases, without thought of self-direction.

Second, thoughts of his own will begin to arise spontaneously. Sometimes they stimulate such motives as carry him astray. During the time of the Judges there appeared in the intellectual life of the Israelites equally as imaginative a period. Their leaders were heroes. Their devotion to them brought about a more general feeling of nationality, but at the same time betrayed them into all sorts of excesses. Who has not observed with interest this period in a boy's development?

Third, the pupil must learn consciously to subject himself to authority, in which, perhaps, he may begin to anticipate a higher authority. The Israelites subjected themselves voluntarily to a royal authority, which appeared to them to be a visible bearer of the divine will.

Fourth, he must learn to know and love the highest authority itself. So the consciousness of the people must be filled with the pure spirit of Christ if it is to rise to its highest stage of moral existence.

Fifth, the individual must learn to labor in the service of this highest authority, at first, within himself for the purpose of realizing the ideas of good will and inner spiritual freedom. Thus the social life of the nation must be filled with the same spirit which the apostles spread abroad.

Finally, having realized these ideas within himself he must seek to bring about a like moral condition in the community in which he will live, while the nation through the former state will grow into an earthly kingdom of God.

The child must rise through these different stages of development, and "the more thoroughly he grasps and assimilates the powers that have been, the more thoroughly does he become master of the situation about him, the more nearly correct and cer-

tain are his judgments, the stronger and more refined are the principles governing his actions, and the more effectively will he grapple with the problems of the future." He cannot proceed from the present historically, since he does not possess apperceptive material for grasping modern culture in its relation to the past.

Hartman's result of child-study quite corresponds to the individual development which Ziller here makes analogous to human development. He shows six characteristic phases in a child's life till his fourteenth year, viz., the development of the child's sense organs in the first three years, or the stage of receptivity; from this to his school age, the stage of reproduction in free play. In the first three years of school life the fancy still holds sway. In approximately the ninth and tenth years the mental attitude is more constant and attentive; the mechanical memory predominating, while the bodily activity borders on wildness. Quarrelling and self assertion are marked features in intercourse. The eleventh and twelfth years usher in the age of reasoning. There is a marked advancement in logical thinking, insight and will power; while the understanding begins to influence moral conduct. The thirteenth and fourteenth years are a continuation of the previous stage. The understanding is more apparent and the judgments more exact. Van Liew, however, expresses himself against all such limitations and fixing of an absolute number of stages. He claims that they can but be arbitrary and are only a hindrance to the intelligent grasp of the culture epochs, if they are understood in any other way than as arbitrary boundaries set for the purpose of analysis.

Vogt, of Vienna sums up these stages very generally and illustrates them in the life of the Jewish people. Intellectually an individual advances through an imaginative, a matter of fact, and finally a reflective mode of thought. So a people exercises first a mythical, then an historical, and finally a philosophical mode of thinking as shown successively in the intellectual products of a nation. Also, morally appear three stages in the individual development; first blind, then voluntary, and finally moral subjection of the will. The corresponding stages in the development of a people are the age of heroes, the age of state building, and the age of social and political advancement.

REIN'S COURSE.

| School Year. | MATERIAL OF INSTRUCTION. | | GENERAL CHARACTER OF EPOCHS. |
|--------------|----------------------------------|-----------------------------------|--|
| 1 | Fairy-tales. | | Mythical and Heroic Mind. |
| 2 | Robinson Crusoe. | | |
| 3 | SACRED. Patriarchs and Moses. | PROFANE. Thuringian Tales. | |
| 4 | Judges and Kings. | Nibelungen Tales. | |
| 5 | Life of Christ. | Christianizing and Kaiser Period. | Mediaeval. State building. Historic Mind. |
| 6 | Life of Christ. | Kaiser Period. | |
| 7 | Life of Paul. | Reformation. | Social & Political Development. Scientific & Philosophical Mind. |
| 8 | Life of Luther. | Nationalization. | |

The most direct follower of Prof. Ziller is Prof. Rein. From the outline it can be seen that his course is essentially the same as Ziller's. He has history to begin with myths, legends, heroic tales, then gradually merge into biography, and finally culminate in history proper.

He says three principles are to be kept in mind in the choice of material :

First, The pursuit of national culture presented and grasped esthetically calls forth a constant interest ; therefore the chronological assent from the older, simpler, to the newer, complex epochs and relations.

Second, The subjects chosen for consideration are classical, so that a groundwork of affable presentations is laid for the youth. Herbart declares that, "periods which no master has described, whose spirit no poet has breathed, are of little worth to education." Only classical presentations invite the pupil to a constant, remunerating return, they alone give to the interest and enthusiasm of the pupil continuous nourishment. Through them alone can the past speak to the present in a sonorous tone.

Third, Large, connected units only, can arouse to a sufficient depth the participation of the youthful spirit, keep constant guard over it, and thus effect true character development.—(Das Erste Schuljahr. Funte Auflage, S. 62.)

Very interesting, indeed, especially to those who are giving their attention to industrial training, is the view which Prof. Beyer in Leipzig takes of the culture epochs. He wishes the dual intercourse in the social development considered, viz., the spiritual and material, which consideration demands an answer to the question, whether there is also an historical development in the natural sciences and social economy. Prof Beyer has set himself the task of solving this problem. He places the idea of human labor as the center point of consideration, and now the question is, what are the typical forms of the natural life in the human race? How has the labor ideal broadened and deepened with the change of time? This phase in the development of man, demands as much careful investigation in each of its stages as has been given to the intellectual and moral development of man. In pursuance of its solution, Prof. Beyer has divided culture into five main epochs; that of the hunter and fisherman, the nomad; of agriculture; the primal division of labor (the development of the manual trades, retail trade and small cities); lastly, metropolitan life, (commerce, wholesale trade, and great industries.)

Remembering that this divides life into two main divisions,—the unsettled and settled, (or resident) condition of man, the primary teacher has to bring this unsettled condition, not only intellectually near to the child, but through direct experience. Therefore, the child should be taken on occasional excursions, trips, journeys. There should be a gradual growth in power along this line. While at first, an excursion might last an hour, soon that time may be doubled, till finally a whole day of wandering can be ventured upon. (This thought may be suggestive in dealing with the question of truancy.) First of all, one stage of human life is experienced here. These journeys, however, should serve as a general course in observation as well. The senses are the means through which we orient ourselves in the material world. Therefore, the discipline of the senses, which should have been begun before the school age, is the problem of the first two school years. The industrial work is very similar to the kindergarten occupations, but where possible, the child is to gather the material for this work from nature, while on an excursion. Very early into this course enters the care and protection of animals. Thus the chief springs of the early school instruction are; (a) The careful, systematic exercise of the

senses ; (b) Connected with the instruction to which the journey gives rise, is the working out of the experiences and observations which the child has gained in both verbal and sign expression ; (c) The industrial training, (particularly with the natural material which the child himself gathers) is begun in an elementary way. All of this gives to the pupil the intuitive experience of the hunter period.

Now if these school journeys have accomplished their aim a friendly relation has begun between the child and all animal life. He has become acquainted with the animal in its natural home, has perhaps cared for a young or maimed one found in the journey, and the wish to have some of these animals (the song birds for instance,) near him for a longer time has certainly arisen. To satisfy this desire, the building of a home for them in the trees about the school house becomes a task for the school work-shop.

The epoch of agriculture introduces two new occupations, the cultivation of the soil and wood work. Therefore, in the third school year more special attention is paid to the school garden. A great value of the school-garden probably cannot be over-estimated. Note Beyer's thought regarding its importance : "Garden work cultivates the will, first of all because it is just work, and as such possesses the disciplining power, which is inherent in every task, but particularly in garden work. Then, too, for the reason that it furnishes more examples of what the human will wishes to gain from nature than any other toil, and in this way arouses self confidence and animation in the workman. It cultivates the feelings thereby, that solely through the mere precedence of the work a large number of the so called formal feelings (feelings of success, hope, expectancy, satisfaction after a well accomplished day's work) ; are present in the workman ; further, however, also thereby that the higher feelings, too, (the esthetic, sympathetic, ethical, and social) find rich nourishment in garden work, partly even in a mere stay in the garden." The child's concept world becomes enriched through the valuable knowledge gained in the several departments of natural science and through important contemplations of the connections throughout nature. All this follows from the immediate intercourse with nature alone. Later the industrial and trade epochs are represented in the school work-shop.

If time would permit, it would be very instructive, as well as interesting, to note his course in wood-work, metal, glass, etc., as he thinks it should be introduced. Most emphatically he expresses himself regarding this training: "A spoonful of deed is better than a bushel of advice."

Now Prof. Rein thinks that each of these epochs is represented in their course of study; the hunter period in the life of Robinson Crusoe; the nomadic in the time of the Patriarchs; the agricultural in the Judges and Kings; the industrial in the history of the middle ages, while the life of the modern citizen is found in the history of the present time.

A slight reference as to how the culture epoch theory has been adapted to our American needs is all that is necessary here. Mr. McMurray places the

Folklore stories in the first year.

Robinson Crusoe in the second year.

Classic Myths in the third year.

Pioneer history stories in the fourth and fifth years.

Colonial history, French and Indian wars in the sixth year.

This is the beginning of the state building period which is continued in the seventh year, where also the Revolution and life under the Articles of Confederation till the adoption of the Constitution is studied. Self government under the constitution and the growth and strengthening of the federal idea is the subject of the eighth year.

The future will prove the true value of this theory. At present all probably agree that the course of study should be suited to the child's stage of mental development, in other words, to his apperceptive ability; it should answer to the inner need of the child, it should have a logical sequence in its organization; but whether the culture epoch theory solves this question or not is still a matter of dispute. To us it sends the message:—labor earnestly in the field of Child-Study, it will yield some practical result.

The evening and the morning have joined in fight at last,
Around the western islands the Old shall fight the New;
Columbia and Hispania, the Present and the Past,
And Eighteen Hundred Ninety-eight fights Fifteen Sixty-two.

LEND A HAND.

(This department is conducted by Mrs. E. E. Olcott.)

*"Look up and not down,
Look forward and not back,
Look out and not in;
Lend a hand."*

AUDUBON.—II.

At Mill Grove, Audubon was known as "the gay young Frenchman," and entered almost as heartily into social pleasures as into the study of his beloved birds. He says frankly that he was "gay," pleasure-loving and extravagant. Fond of dress we may judge him to be, from the fact that he sometimes went hunting in "satin knee-breeches, pumps and exquisitely ruffled shirts." No premonition of poverty troubled him, yet the day came when he painted the portrait of a shoemaker to pay for a pair of boots!

Just beyond Mill Grove lay Fatland Ford, an estate owned by Mr. Blakewell, an Englishman who "had several very handsome and interesting daughters, and beautiful pointer dogs." "But," says Audubon, "English was English to me; my poor, childish mind was settled on that, and, as I wished to know none of the race, my neighbor's call remained unacknowledged."

However, one snowy day he and Mr. Blakewell chanced to meet and hunt grouse together, and Audubon found his neighbor so pleasant that he decided to call soon. Of that memorable call, the naturalist in after years wrote: "Well do I recollect the morning, when for the first time I entered Mr. Blakewell's dwelling. It happened that he was absent from home, and I was shown into a parlor where only one young lady was snugly seated at her work by the fire. She rose at my entrance, offered me a seat, and assured me of the gratification her father would feel on his return, which, she added, would be in a few moments, as she would dispatch a servant for him. Other ruddy cheeks and bright eyes made their appearance, but like spirits gay soon vanished from my sight, and, there I sat, my gaze riveted, as it were, on the young girl before me, who, half working, half talking, essayed to make the time pleasant to me. Oh! may God bless her! It was she, my dear sons, who afterward became my beloved wife and your mother. Mr. Blakewell soon made his appearance and received me with the manner and hospitality of a

true English gentleman. The other members of the family were soon introduced to me, and Lucy was told to have luncheon produced. She now rose to her feet for the second time, and her form, to which I had previously paid but little attention, showed both grace and beauty, and my heart followed every one of her steps."

We have no personal testimony of Lucy Blakewell's impression of the caller, but from others we learn she "beheld a tall, handsome personage, with large, dark eyes, and hair fine of texture and luxuriant, divided and passing down behind each ear in luxuriant ringlets as far as the shoulders."

It was the old story of love at first sight. She was enthroned with the birds in his heart of hearts. Audubon gave drawing lessons to the fair Lucy, and in return she taught him the once despised English, and both learnt a lesson not taught in books. The course of true love was made rough by DaCosta, the elder Audubon's agent, who opposed the engagement and threatened to cut off young Audubon's income. Thereupon, the hot-headed lover, scorning the winter weather, walked all the way to New York City, expecting there to find money deposited for him. But DaCosta had taken care that not a penny should be at his command, and had even planned to have him abducted and sent to China.

Luckily, Audubon succeeded in borrowing money to pay his passage to France, where his father received him with open arms, bestowed a paternal blessing upon the betrothal, gave Mill Grove to his son, and dismissed DaCosta from his service. Audubon remained visiting his parents a year, making during the time two hundred sketches of French birds.

Returning to Mill Grove he renewed his wooing of Lucy, and his study of feathered friends with fresh ardor. However, Lucy's father insisted on seeing some visible support before giving his final consent to the marriage. So Audubon, for love's sake, reluctantly entered a New York counting house. There he demonstrated his utter unfitness for business. He could not roam the forest, but he managed even within city walls to obtain specimens to stuff. The odor of the skins was so objectionable that a constable waited upon him with orders to abate the nuisance. He lost a large sum in a bad speculation, and was so careless that he once posted an unsealed letter containing \$8,000.00. He

certainly gave no evidence of ability to support a family, and it would be interesting to know what arguments finally overcame Mr. Blakewell's fears for Lucy's future, but on this point biographers are silent.

We only know that in the spring of 1808 the marriage took place, that Audubon sold Mill Grove and started with his bride for the West to invest the money. For their wedding journey they rode to Pittsburg in a coach (which, by the way, upset and injured the bride seriously), and then floated for twelve days on a flat boat down the Ohio. Louisville was then a thriving village, and here Audubon and a partner opened a store. We might pity the lot of the fastidious young bird-student in being doomed to the dull routine of selling flour and bacon, were it not for his own testimony:

"Merchants crowded to Louisville from all our eastern cities. None of them were, as I was, intent on the study of birds, but all were deeply impressed with the value of dollars. Louisville did not give us up but we gave up Louisville. I could not bear to give the attention required to my business, and which indeed every business calls for, and therefore my business abandoned me. Indeed, I never thought of it beyond the ever-engaging journeys which I was in the habit of taking to Philadelphia or New York to purchase goods. These journeys I greatly enjoyed, as they afforded me ample means to study birds and their habits as I traveled through the darling forests of Ohio, Kentucky and Pennsylvania. Were I to tell you that once while travelling and driving several horses before me, laden with goods and dollars, I lost sight of the pack saddles and the cash they bore to watch the motions of a warbler, I should only repeat occurrences that happened a hundred times and more in those days. To an ordinary reader this may appear very odd, but it is as true, my dear sons, as it is that I am now scratching this poor book of mine with a miserable iron pen. We became discouraged at Louisville and I longed to have a wilder range. This made us move to Henderson, 125 miles further down the fair Ohio. We took there the remainder of our stock on hand, but found the country so very new and so thinly populated that the commonest goods only were called for. I may say that our guns and fishing lines were the principal means of our support as regards food."

Abandoning the store he built a mill which still stands, form-

ing a part of a tobacco warehouse at Henderson. He was as unsuccessful in milling as in store-keeping. Though he seemed unmindful of the loss of custom as merchant or miller, there came a loss while at Henderson which hurt him cruelly. During one of his long journeys he left in the care of a friend a box containing more than two hundred of his precious sketches; returning, he found "that a pair of Norway rats had reared a young family among the bits of paper that a few months before had represented over a thousand inhabitants of the air."

"The poor artist," writes Mrs. Mary Bradford, president of of the Audubon Monument Association, of New Orleans, "was overwhelmed at the greatness of the disaster, and days of fever, almost of madness, followed. Then, as he tells us, he took up his gun, his sketch books and pencil, and sallied forth as gayly as if nothing had happened, consoling himself with the thought of making better drawings than those he had lost, and in three years he had re-filled his portfolio."

Business losses succeeded each other rapidly, and soon Audubon was utterly bankrupt. He returned with his family to Louisville and for a time earned a bare pittance making crayon portraits. Later he was engaged to stuff birds for the Cincinnati Museum. He entered heartily into the work, but had to abandon it because it was not paid for.

About this time we infer that Mrs. Audubon secured a position as teacher, which enabled her to provide for herself and children, for we are told that "Audubon now determined upon a lengthened tour throughout the southern states." He was from a business standpoint shiftless, but never heartless, and would not have left his wife and little ones dependent upon charity.

"In the summer of 1820," writes Mrs. Bradford, "Audubon landed at New Orleans poor and friendless. Here he began as usual taking portraits that he might live and paint birds. He made many friends, though he was too poor to buy a book to write his journal in. His fortunes varied greatly; one day he was dining with the Governor of the state, the next patiently earning a pittance. He thoroughly explored the state."

In about two years his family joined him in Louisiana, and Mrs. Audubon opened a school at Bayou Sara. Soon after settling here, Audubon decided to abandon all attempts at business, and devote himself wholly to ornithology.

Later he went to Philadelphia to find a publisher for his drawings. He was cordially received and met many notable personages who enthusiastically praised his sketches, but as for publishing them he says: "Not only water, but *ice* water was thrown upon my undertaking."

"Full of despair," says Mrs. Bradford, "he looked to Europe as his only hope. Returning home by way of the Great Lakes, he finally arrived at Bayou Sara with rent clothes, uncut hair, and altogether looking like a Wandering Jew." He found his wife in receipt of an income of about three thousand dollars a year, which she generously gave her husband to assist him in the publication of his work, and to swell the sum, he gave dancing lessons to a large class in Woodville, Miss. Audubon realized about two thousand dollars from the dancing enterprise, and joyfully started for the Old World.

In England he was favorably received and made five hundred dollars exhibiting his drawings. From Scotland he wrote to his wife: "My success in Edinburg borders on the miraculous. I have taken to dressing twice a day, wear silk stockings and pumps; I wear my hair long, as usual. It does as much for me as my paintings. I am feted, feasted, elected honorary member of societies, and am making money by my paintings and exhibitions. It is Mr. Audubon here—Mr. Audubon there—and I can only hope that Mr. Audubon will not be made a conceited fool at last."

Some bitter experiences were still in store for him, but he had entered the border-land of recognition and success.

[TO BE CONTINUED.]

DEWEY A "BAD" SCHOOL BOY.

Early in the 50's, when Dewey was a boy, Major Z. K. Pangborn, now a resident of New Jersey, and for thirty years the editor of the *Evening Journal*, of Jersey City, being then fresh from college, undertook the management of a district school at Montpelier, Vermont.

The school had been in rebellion for a long time, and the boy Dewey was the leader of the anti-teacher brigade. Several previous teachers had been "removed," one had been stood upon his head in a snow-bank, and it was generally said at Montpelier that nobody could govern that school.

When Mr. Pangborn appeared at school the first day of the session, he noticed Dewey up a tree throwing stones at small boys. He told him quietly that he must stop that. The reply was insolent and Dewey did not come down. School went smoothly that day, but there were indications that showed the teacher that trouble was coming. So he provided himself with a nice rawhide whip, which he tucked away over the door, and then placed several sticks of good hickory on the top of the pile in the old wood box.

Next day the fun began. Another boy who was disorderly was told to take his seat. He did so, and seven of the big boys joined him on the bench. Then Dewey stepped up and coolly informed the teacher they were "going to give him the best licking that he had ever had."

"Go to your seat," commanded the teacher, who was not so big a "man" physically as either of the two boys mentioned. Dewey struck out and the next instant the rawhide was playing catch-and-go all over him. The other "biggest boy" entered the fight and was promptly laid low with a blow from one of the hickory sticks. Dewey was by this time lying upon the floor howling for "quits," and the other boy lay near him unconscious. The rebellion was over and Mr. Pangborn had no further trouble with that school. He took Dewey home to his father and reported that he had brought him his son "somewhat worse for wear, but ready for school work."

"Thank you," replied Mr. Dewey. "I guess George will not give you any more trouble. He will be at school to-morrow."

The father of the other boy tried to get a warrant for the arrest of the school teacher, but there was not a magistrate in the county who would issue one. They said if any one had been found who could govern that school, he was the man for the place.

Young Dewey remained at school. He soon became a good scholar, and, under his friend's tuition, fitted for the Annapolis Academy. Years after these events he was wont to visit Major Pangborn at his home in Boston, where the former teacher was editor of the old *Atlas* and *Bee*. On one of these visits he said to him: "I shall never cease to be grateful to you. You made a man of me. But for that thrashing you gave me I should probably now be in the State prison." Dewey was at this time a

young lieutenant in the navy, and a chum of Major Pangborn's brother, who was then a young naval officer. The two spent much time at Major Pangborn's home, and he always speaks of Dewey as "one of his boys," and is naturally proud of him.—*New York Evening Sun.*

Anything about the hero of Manila catches our attention; then too, it is interesting to note Dewey's opinion of corporal punishment under special circumstances! The anecdote also suggests a query—"Why do the boyhood escapades of great men have such an attraction for the public?" Is being mischievous and unruly a mark of superiority *if* a boy afterwards achieves greatness? Can it be that weak humanity feels that waywardness brings Dewey nearer to them, and hence, they enjoy reading another anecdote, telling how he robbed a fine apple tree and got ahead of the teacher and the owner of the orchard? Won't some old friend recall a courageous, law-abiding act of the hero in his youth? Was his ability to plan campaigns shown only in defying authority? Robbing apple trees may be only fun, but the owner loses the fruit as surely as if a shanty boatman stole it and sold it at the nearest market. Why is it that so many—shall we say the majority—of grown people, in talking of their school days, tell of their misdeeds with such relish? The thought seems to be that, in a boy, manliness and good deportment are rather antagonistic; that a boy has no spirit who of his own free will obeys rules.

Won't some child-study circle give special attention to the boyhood of great men, with the view of ascertaining whether the majority were regarded as scapegraces? It is generally accepted that great men have great mothers; is it also to be said that great men were "bad" boys?

God give us men! A time like this demands
Strong minds, great hearts, true faith, and ready hands—
Men whom the lust of office will not kill;
Men whom the spoils of office can not buy;
Men who possess opinions and a will;
Men who have honor; men who will not lie;
Tall men, sun-crowned, who live above the fog,
In public duty and in private thinking.

—J. G. Holland.

THE SCHOOL-ROOM.

TEACHING PERCENTAGE.

J. STOMMEL.

The philosopher is constantly searching out the unity, which exists in all departments of studies. Since every true teacher is a philosopher, he will strive to discover unity wherever it exists, and thus he will greatly increase his teaching power. Such unities or fundamental principles which connect different individuals into one united whole, aid greatly in fixing acquired knowledge in the pupil's mind; and, since they systematize his knowledge, he can more readily make use of it. The teacher should not announce the underlying principles, but by skilful questioning and demonstrations the pupils should be led to discover them for themselves.

Now any progressive teacher will have found out that all the subjects included under the term percentage give rise to only four different processes of computation; that the only difference is in the terms used; that two terms are always given and that the others may be found. The pupil when beginning the study of percentage should be made well acquainted with the terms, "Base, Rate, Percentage and amount." He should have a great deal of drill in the formulas: $B \times R = P$; $P \div B = R$; $P \div R = B$; $A \div 1 + R = B$ (when profit); $A \div 1 - R = B$ (when loss). He should also know that the base always represents 100% in unity, and may be represented by any improper fraction as $\frac{3}{2}$, $\frac{5}{4}$, etc., as we may choose; and that the rate should always be expressed decimally in the processes of multiplication and division. As it is sometimes more convenient to express the rate in the form of a common fraction; *i. e.*, when the terms of the fraction are not too high, he should be taught to express it in that form; but he should be shown that in the selection of representing the rate either by decimal or common fractions, we are solely guided by the economy of time and energy.

Then last, but not least, the teacher would not reach the desired result, if he would fail to make the pupils illustrate by original problems the four different cases of percentage. After the pupils have thoroughly mastered the subject of percentage,

they may take up the subject of profit and loss. They should carefully study the terms used, and compare them to the corresponding terms in percentage. It will be found a good method to have the pupils discover and name the terms given in each problem, compare them with those in percentage, and then solve the problem by a known method. This is a systematic process of solving a problem, for the mind constantly rises from the individual through the unifying relation to the general notion. The following table gives the terms in percentage with their corresponding terms :

| I. PERCENTAGE. | | | | |
|------------------------------|--------------------------------|------------------------|-----------------------|-------------------------------------|
| Base | Rate | Percentage | Amount | Difference |
| II. PROFIT AND LOSS. | | | | |
| Cost | Per cent. of Profit or Loss | Profit or Loss | Cost plus Profit | Cost — Loss |
| III. STOCKS AND BONDS. | | | | |
| Stock | Rate of Dividend or Assessment | Dividend or Assessment | Stock plus Dividend | Stock — Dividend |
| IV. PREMIUM OR DISCOUNT. | | | | |
| Par Value | Rate of Premium or Discount | Premium or Discount | P. Value plus Premium | Market Value P. Value — Discount |
| V. COMMISSION AND BROKERAGE. | | | | |
| Amount of Sales or Purchase | Rate of Commission & Brokerage | Commission & Brokerage | Cost | Net Proceeds |
| VI. STOCK INVESTMENTS. | | | | |
| Amount Invested | Rate of Dividend | Income | | |
| VII. INSURANCE. | | | | |
| Amount Insured | Rate of Premium | Premium | | |
| VIII. TAXES. | | | | |
| Property | Rate of Taxation | Tax | Am't plus Tax | Amount — Tax |
| IX. REVENUES. | | | | |
| Invoice | Rate of Duty | Duty | Cost | |
| X. INTEREST. | | | | |
| Principal | Rate | Interest | Amount | Difference |

Hanover Center.

UNRULY BOYS.

The different methods used by the teachers and head-masters to check a boy who is running headlong down the wrong road, are a curious subject to study for those who have the same work to do.

We all remember Tom Brown's description (doubtless a fact)

of his treatment by Doctor Arnold when he and two other boys were "sent up" for being out after hours. How the doctor, busy with carving a toy boat for one of his own children, questioned the boys with twinkling eyes about their scrape, examined their muddy clothes, and sent them to the housekeeper for a wash and bread and jam, adding a friendly hint to put off such long runs until they were older, so making of them friends for life.

Lord K., when he was an old man, told of a miserable, drunken row in which he took part at Oxford, when he was sixteen. The next morning he was summoned before Doctor X. and went up resolved to be defiant and impudent.

To his surprise he was ushered into the doctor's sanctum with marked respect as an honored guest. The old man courteously motioned to him to be seated, and turned to an open copy of Burke's Peerage.

"I find here," he said, "that your family name is C."

"Yes," said the delinquent.

"Your grandfather," his long fingers on the book, "at your age was serving his king in India, which country he helped to gain for England by his valor."

"I believe that is correct," said the boy, stiffening himself.

"Your uncle when younger than you, began those scientific discoveries which have made his name known to all the world."

K. bowed.

"Your father was a leader in Parliament and in the nation. He gave his life to the reform of abuses."

Again K. bowed assent proudly.

"And you—you," in a voice which brought him to his feet, "I hear that you spend your days in fighting cabmen, and your nights in ginshops. I cannot believe it of the son of your fathers. Come back to me in a month and tell me the truth about yourself."—*Youth's Companion*.

MEMORIZING.

A much-appreciated friend writes us :

One time is as fitting as another for an essential thing in educational work, and whenever you have room for a strong word for pure gold put in something on good memory work.

The time was when memorizing was so misdirected that it

was antagonized. Because it was wrongly done, it was said to be over done, hence neglect became to be a supposed virtue, until it has become a positive vice. No crowding of the program with things new or old can be a valid excuse for omitting to store the mind with choice bits of truth and rare selections from literature.

Processes are easily forgotten, facts learned in 1898 may be out of date in 1900, but truths memorized to day are never untruths, and selections from the masterpieces never need be changed to meet the times.

Well done memorizing is a relaxation and recreation for the school, as much as music or gymnastics. Memorizing should not be a task assigned for punishment, nor a burden for home study, but a relief exercise, much after the plan of singing and physical culture.

It is now fourteen years since I was visiting a school in one of the outside villages in Utah, a school taught by an eastern girl. There were nearly one hundred pupils. At the stroke of the desk bell at opening one child recited some devotional verses, and the whole school repeated them in concert. Then one child recited "the new verse for the week," and all repeated. As they took their books for study they all recited the verse upon diligence in business. At the calling of the recitation they recited the verse upon striving lawfully.

At recess I was talking with the teacher and her assistant indoors, when some disturbance without caught the teacher's ear, and stepping to the open window, she said, "Who has a good verse for such an hour?" and as with one voice came the reply: "He that ruleth his own spirit is better than he that taketh a city," and quiet reigned at once.

I asked the teacher how she found time for having so much memorizing, for I had discovered that the pupils knew many whole poems and no end of "character truths."

"Why," she replied, "I only take the time I used to spend in scolding in the East. I have not scolded once in two years. When anything goes wrong, I think of some verse or motto or selection that is worth memorizing. It is often appropriate, but if not, that makes no difference, and I say, 'Now is a good time for some memory work,' and we all work at it till I feel better and they are diverted."

Some years ago a private school in Connecticut attained

almost a national reputation by devoting a little time once a week to memorizing the best literature, reviewing occasionally all that had been memorized, so that every graduate of that seminary had at command for life vast resources of choice literature.

Memorizing was brought into disrepute because time that should have been given to the permanent possession of the masters was wasted on memorizing definitions and explanations in arithmetic and grammar, and the endless text of geography and history. To this day there are pupils that can say that arithmetic is the science of numbers and the art of computing, who do not know one selection from any masterpiece.

So far as is known to us, J. P. McCaskey, of the Lancaster (Pa.) high school has the banner secondary school of the country in the equipment of good literature which it gives its students. There is something so unusual as to be phenomenal in the amount of choice literature into which the young people of Lancaster come into permanent possession, and this without neglecting any other department of their work.

The beauty and power of such memorizing lies not alone in the thought with which the mind is equipped, but largely in the rhythm, through which the mind comes to move.

The great universities now require students to memorize and recite a vast amount of Chaucer in the English of his time that they may have the rhythm in all its power and beauty. In the same way they learn Italian masterpieces indefinitely. If this rhythm of the masters is worthy the time required for a young man or woman of twenty to learn it, how much more is it worth while for the pupils in the elementary schools and students in the secondary schools to have the mind move to the rhythm of the masters.—*Journal of Education*.

It is interesting to learn that the Riverside Press of Houghton, Mifflin & Co. was so named by Henry O. Houghton in 1852 to avoid its being spoken of in association with the town poor farm, to which use the beautiful location had been put for several years. For nearly half a century this charming spot on the Charles, with its appropriate name, has been a household world throughout the length and breadth of the land. There is no more valuable trademark in literature than "Riverside," a name that must ever be associated with the memories of Holmes, Emerson, Longfellow, Whittier, Lowell, Hawthorne, Thoreau, Aldrich, and Harriet Beecher Stowe.

EDITORIAL.

THE NATIONAL ASSOCIATION to be held at Washington, D. C., July 7-12, will be a great meeting. It will be seen by reference to the calendar that these dates include Sunday—an entirely new feature. Tickets will be sold July 3, 4, 5 and 6. Railroads will sell tickets at one fare plus \$2.00 for the round trip. Tickets can be extended and made good returning till July 31st, for 50 cents extra. All roads give the same rates and there is no "official" route. The officers of the National Association ask favors of all the roads alike and promise them that there shall be no discrimination in favor of certain roads as against others, and no one is authorized to announce an "official" route. See announcements on other pages for description of routes and other details. Indianapolis should have a large delegation.

THE TOWNSHIP TRUSTEE MUDDLE.

Township trustees were elected in November, 1894, to hold four years, and took possession of their offices, by agreement, in August, 1895. Suit was afterward brought in the Grant County Circuit Court to test the constitutionality of the act, and the court held the law constitutional. If the law had been held invalid the term would have been cut to three years and three months. The Legislature again changed the day of election from November, 1898, to November, 1900. A mandamus proceeding was brought in Whitley county to compel the election officers to issue blanks and take other steps necessary for an election of trustee next November, but the court held the law was constitutional. An appeal was taken to the Supreme Court, where the case is now pending. What the result of this suit will be cannot be foretold; but the effect, if the law is held unconstitutional, will be to throw the township trustee election, probably, back under the old law into the spring elections and add much to the confusion of the situation.

The probabilities seem to be that the law will be sustained. A decision may be rendered about July 1.

SCHOOL DISTRICT—ABANDONMENT.

The Supreme Court has rendered the following decision in regard to the abandonment of school houses:

"(1) If the trustee acts in good faith and in the furtherance of what he believes to be the interests of economy and a longer school term, a township trustee can discontinue a school which is attended by only a few pupils, and distribute such pupils among the other schools of the township to which they are most convenient, provided this can be done without requiring any children to go an unreasonable distance to school. (2) Acts 1893, page 17, which forbids township trustees to remove school-houses without the sanction of the county superintendent does not affect a trustee's right to abandon a school in good faith, though he would not have a right to make a mere colorable abandonment for the purpose of evading the statute by indirectly changing the location of the school."

There are hundreds of school houses in the state which should be abandoned, and many others consolidated. Fewer school houses means better grading, better teaching, more money.

TEACHERS' RIGHTS.

In the light of recent occurrences the JOURNAL must again protest against the treatment of unsatisfactory teachers by some trustees and some superintendents.

If a teacher fails to do satisfactory work it is the duty of a superintendent to point out the defect and lend all possible assistance in righting the wrong. If by the aid of the superintendent a teacher cannot bring the work up to the required standard, then that teacher can have no just cause for complaint if notified at the end of the year that her services will not be needed longer. But even then, the proper thing to do is to give the notification privately before the close of the school, so that the teacher may resign. But to do as some superintendents and school boards do, viz.: allow a teacher to work up to the end of the school year without having made any specific complaint, and then drop him or her without warning is simply adding insult to injury.

When a teacher can truthfully say, I was dropped at the end of the year without any criticism having been made on my work, she makes a very severe and just criticism on the work of her superintendent.

If a superintendent has any function aside from the general management of his schools, it is to observe the work of his teachers, see their weak places, and then by judicious means render needed assistance.

A superintendent who is willing to have his teachers dropped as above indicated, can have no just ground of complaint if the board should wait till the last day of school and then give him "the grand bounce."

Teachers have some rights which trustees should respect.

LEGAL CONTESTS IN SCHOOL MATTERS.

Legal controversies always lead to hard feelings and often to bitter strife. It is always a calamity to have these contests arise over school matters. Last month the JOURNAL made mention of a contest over the county superintendency of Johnson county. Within a few days the Circuit Court rendered a decision in favor of Mr. Therman, but it is understood that Mr. Hendricks will appeal the case to the Supreme Court. The JOURNAL is informed that each of the contestants will hold a teachers' institute and the teachers are in great trouble as to what course to take.

The contest is along party lines but the teachers do not desire to take sides on such grounds and they ought not be forced to do so. Neither do they wish to take sides as between the two men, and they ought not be compelled to do so. They do not wish to offend either man, and if they act with one the other is likely to take offense. Until the Supreme Court decides the case no one knows which side is right. In the meantime the

teachers ought not be ground between two mill stones when they are utterly powerless to help themselves.

The JOURNAL suggests a compromise, so far as the institute is concerned. An agreement could be made so that the legal status of the case would not be affected. Then the contestants could come together jointly, make a program and jointly conduct the institute. This will save the teachers trouble and expense and will in many ways promote the educational interests of the country.

Of course this means some sacrifice of personal feeling, but the welfare of the teachers and the general educational interests should control.

The suggestion is practicable for exactly this thing was done one year ago in Martin county, pending a superintendency contest in that county.

In all such cases the interests of the children should be paramount.

DR. HAILMANN'S DISPLACEMENT.

The *Evening Post's* Washington correspondent says: "In the midst of the war flurry little public attention has been attracted to a change just made in the Indian service. The appointment of Miss Estelle Reel to be superintendent of the Indian schools not only puts this office for the first time into feminine hands, but displaces Dr. W. N. Hailmann, the most valuable man who ever filled it. He is a model educator as well as a man and a citizen of the highest character. His enemies included Captain R. H. Pratt, of Carlisle, and a host of political time-servers, who have not hesitated at any device by which they might hope to crowd him out. To them the secretary of the interior and the President have lent willing ears, instead of listening to the disinterested friends of Indian education. To Miss Reel's credit, it should be said that she has steadily declared her admiration of Dr. Hailmann and his work, and her unwillingness to be considered a candidate so long as he remained at his post. It was only in view of the fact that a change was to be made anyway that she was willing to apply for the appointment. Personally she has made an excellent impression wherever she has appeared, and her record as superintendent of public instruction in Wyoming is said to be very good. The great regret expressed everywhere is that her appointment should have come as the result of the machinations of those who have succeeded in making a cat's paw of the administration of the Interior Department."

The above tells all the disgraceful story. Dr. Hailmann did not happen to belong to the right party and the right church, therefore he must go, notwithstanding the fact that he was doing the best work ever done in the department, and notwithstanding the fact that he ignored absolutely partisan and church influences and was governed entirely by civil service rules and principles. His chief offense was that he could not be used by politicians. All the organizations interested in the welfare of the Indians were unanimous in favor of Mr. Hailmann's retention, and Commissioner W. T. Harris on whose recommendation he was appointed also endorsed his work and wished his retention, but the *politicians* wanted his place and got it. Shame on the administration.

BOOK EVALUATIONS.

CONDUCTED BY CHARITY DYE.

[NOTE.—This department is not a library bulletin, but a teacher's exchange through which the experience of one will reach a number of others.]

(Communications addressed to 1123 Broadway, Indianapolis.)

HISTORY CONTINUED

Barnes, James. Harper & Brothers. 1896. *For King or Country*. Suitable for boys and girls from 12-17. Grade 7 and upward. Question of devotion to country or friends and ancestry. Locality, New Jersey and east part of United States. Period, eighteenth century. Information about home life and social intercourse in early days of the Revolution. Language, good. Illustrations, good. Moral tendency, *very good*. An excellent book to read while studying the American Revolution. Evalued by Adelaide Baylor, Wabash, April 26.

Miss Baylor writes: "*Church's Stories from English History* are as good as anything that I know for children in the line of English history. From Julius Cæsar to Queen Victoria, three volumes. *The Cruise of the Mohawk* is a fair story of our civil war, and such stories, I think, are not so common, as those on other portions of history."

Freeman, Edward A. Oxford. 1880. *Short History of the Norman Conquest of England*. Suitable for boys and girls from 12-14. Grades, 6 and upward. Treats of the Norman conquest of England. Locality, Gaul and England, 802-1088. The most valuable information upon the period. Language, simple. Moral tendency, the best. Not an abridgment of the five large volumes but the same tale told afresh.

Wright, Henrietta Christian. Scribner's Sons. 1895. *Children's Stories of American History*. Suitable for boys and girls 12 years old. Grades, 5A-8B. Treats of ancient America, discovery, conquest and settlement of America, North America and Peru. Extends from Ice period to the Revolution. Gives the important facts of early Europeans and Indians. Language, clear, forcible, good. Illustrations, suited to subject. Moral tendency, the best. Points well selected. Children like and remember the stories. There is less detail than in historical pioneer stories. Contrast between present and early life not strikingly developed. Evalued by Rosa E. Dark, March, 1898

Wright, Henrietta Christian. Chas. Scribner's Sons. *Children's Stories of American Progress*. Suitable for boys and girls 12 years and over. Grade, 6. Treats of the United States from the Revolution to Civil War, giving the chief facts of the period in clear, forcible, good language. Illustrations, appropriate. Moral tendency, elevating, not sensational and holds the attention of the children. Evalued by Rosa E. Dark, March 19, 1898

Cooke, John Esten. Harper & Brothers, New York. 1879. *Stories of the*

Old Dominion. Suitable for boys and girls. Grades, 6-8 and over. Virginia, 1607-1783 from settlement to the end of the Revolution, giving the most striking events. Language, simple. Illustrations, good. Moral tendency, good. It shows the bravery of John Smith, Washington, and the worth of Jefferson and others. Evalued by Mary A. Dye,

QUESTIONS AND ANSWERS.

STATE BOARD QUESTIONS USED IN MAY.

HISTORY.

1. (a) *For what principle was Bacon contending in his rebellion in Virginia?*

(b) *What conditions prevailed in England at that time?*

(a) For the principle of popular rights. Berkeley practically formed the assembly of his supporters, and then shrewdly discontinued the elections. Besides, land titles became uncertain through the action of the king in giving Virginia to two of his favorites for thirty-one years. Then, when Berkeley refused to send troops against the troublesome Indians, the people were ready for open rebellion.

(b) The conditions in England, at this time were not at all easy, quiet, or secure. The intrigues of Charles with Louis XIV, had in them terms and objects most scandalous. The state of the public mind led to a serious delusion and panic, "The Popish Plot" (1678). About this time (1674) England made peace with the Dutch, and the marriage of William and Mary took place (1677), a fact of great significance at the time, as it marked the end of the hostile feeling against the Dutch, which, for so many years, had been the dominant note of English foreign politics.

2. (a) *What were the conditions of the French alliance with the Americans in the War of Independence?*

(b) *What were some of the immediate effects of the alliance?*

(a) The parties to the alliance were to aid each other in both offensive and defensive wars.

(b) Some of the immediate effects were, (1) the declaration of war against France by England, and (2) the change of England's policy toward the Americans. She repealed the tea duty, the Boston Port Bill, and other hated measures, and promised that there should be no more taxation without representation. In America, there was a feeling that the Independence of the United States was assured.

3. *What were the great compromises in the Constitutional Convention of 1787 that made the formation of a national government possible?*

First. The populous states insisted that the number of representatives sent by each state to Congress should be in proportion to her population. The small states insisted that each should send the same number of representatives. The compromise decided upon was that the states be given equal vote and equal representation in the Senate, and an unequal representation, based on the population, in the house.

Second. Then the question came up, "Shall the slaves be counted as population?" This led to the second compromise by which it was agreed that three-fifths of all slaves should be counted as population, for the purpose of apportioning representatives.

Third. A third compromise sprang from the conflicting interests of the commercial and the planting states. Those engaged in commerce wanted a provision forbidding Congress to lay a tax on articles exported from the United States. The planting states opposed this; but they in turn asked the right to import slaves for use on their plantations. The free commercial states wanted the importation of slaves stopped, because every five slaves counted as three white men in apportioning representation. The result was an agreement that the importation of slaves should not be forbidden by Congress before 1808, and that exports should never be taxed.

4. *What were the provisions of the Kansas-Nebraska Bill, and why did its introduction into Congress produce such intense excitement?*

In 1853 all that part of our country which lies between the Missouri River and the Rocky Mountains, the south boundary of Kansas and 49°, was wilderness, known as the Platte country, and was without any kind of territorial government. The Kansas-Nebraska Bill was a bill to organize this great piece of country into two territories, one to be called Kansas and the other Nebraska, in which the settlers should decide whether they should have slavery or not. The bill expressly repealed the Missouri Compromise, and opened up the country north of 36° 30' to slavery; it declared that the slavery restriction of the Missouri Compromise was suspended by the principles of the legislation of 1850, commonly called the compromise measures, and was therefore inoperative.

This bill produced intense excitement because it reopened with renewed bitterness the slavery controversy, which the people had looked upon as being fairly settled; and the eagerness with which the South welcomed a renewal of the slavery agitation, was regarded by the North as a breach of faith.

5. *What was the main issue in the Presidential campaign of 1860? What position did the respective parties hold upon that issue, and who were the presidential candidates?*

(a) The main issue was the extension of slavery into the territories.

(b) The Northern Democrats believed in the principle of popular sovereignty, which allowed the people in the territories to decide for themselves whether or not they would have slaves. The Southern Democrats declared that the Constitution imposed upon Congress the duty of protecting slavery in the territories, and supported their view by the Dred Scott Decision. The Republican party declared that the Constitution imposed upon Congress the duty of forbidding slavery in the territories and repudiated the Dred Scott Decision. The Constitutional Union Party was non-committal.

(c) The Northern Democrats nominated Stephen A. Douglas and Herschel V. Johnson. The Southern Democrats, John C. Breckenridge and Joseph Lane. The Republicans, Abraham Lincoln and Hannibal Hamlin. The Constitutional Unionists, John Bell and Edward Everett.

6. (a) *What was the "Trent Affair" of 1861?*

(b) *In what respect did the settlement of that affair vindicate the position taken by us in 1812?*

(a) To secure aid for the southern cause Mason and Slidell had been selected by the Confederate government as commissioners to England and France. In November, 1861, they escaped the blockade at Charleston and took passage at Havana on the British Mail steamer *Trent*. Captain Wilkes, of the United States war-vessel *San Jacinto*, stopped the *Trent* not far from the Bahama Islands, took off Mason and Slidell and confined them in Ft. Wagner in Boston Harbor.

President Lincoln, knowing that the war of 1812 was brought about mainly because England claimed the right to stop and search neutral American vessels at sea, wisely refused to approve the course taken by Captain Wilkes. Accordingly he at once gave up the prisoners to England, with the statement that Captain Wilkes had acted without any authority from the United States Government.

7. *Trace briefly the tariff controversy from 1816 to the present time.*

Until 1816, duties had been levied on goods from foreign countries, mainly for revenue to pay the expenses of the national government. Many of these duties furnished incidental protection to American manufactures.

The protective tariff laid in 1816 was too moderate. The duties were therefore gradually increased until the high tariff of 1828 was passed. This displeased the South and caused serious trouble; hence, in 1832, an attempt was made to bring about an adjustment of the difficulty by adopting a new protective tariff, lower, and therefore less objectionable to the South, than the tariff of 1828. But South Carolina was still dissatisfied, and trouble more serious than ever occurred, and a compromise measure, known as the Tariff of 1833 was passed. It provided for a gradual reduction, extending through ten years, at the close of which period it would not be far removed from a tariff for revenue only. But in 1842, a tariff was passed protective in its nature; and in 1846 it was again lowered till it was almost in accordance with the strict constructionist theory, a tariff for revenue only. The tariff of 1857 was a still greater reduction, the duties then being lower than at any other time since 1816. The tariff of 1861 was the basis of the "War Tariff," and was a great increase over the past high tariffs. No change worthy of mention was made for twenty-five years, when the accumulated surplus gave rise to the attempt to pass the "Mills Bill" in Cleveland's administration, but it failed in the Senate. Under Harrison's administration, the McKinley high tariff bill was passed. In 1894, the Democrats passed the Wilson Bill, a moderately low protective measure. In 1897 (July 24) the Dingley Tariff, passed by the Republicans, raised the duties over those of the Wilson Bill.

GEOGRAPHY.

1. *How have water and ice assisted in bringing about the present condition of the surface of the earth?*

Rain washes away the surface of the hills toward the valleys. Rain

water slowly dissolves and carries away the cement which binds together the grains of many rocks ; when it freezes in crevices of rocks it expands and pries off pieces of stone, which slowly crumble under the effects of heat and cold.

Hot water springs deposit much mineral matter on the surface in their vicinity.

Running water, by carrying earthy particles, which strike against the sides and bottom of the stream, wears them away, and in time forms deep valleys. A hard layer of rock sometimes retards the deepening of the valley above its edge, while the deepening of the valley below continues, and thus a rapid or a cataract is formed. When a swift stream enters a more level region, its current is checked and sediment is deposited, forming sand banks or bars.

The ice of glaciers has scraped out basins that formed lakes ; smoothed and rounded off rocky edges ; disintegrated rocks ; formed low hills of coarse rock waste ; and carried finer waste into the lowlands. Moraines, old glacial lakes, smoothed rocks, and drumlins are found in many places as the work of glaciers.

2. *How are deltas formed? Name three important deltas in the world?*

Most of the silt that is washed down river channels to the sea settles near the river mouth, where the water flows more slowly. The settlements, called sediment, form low and flat plains, in which the river often divides into many branches called distributaries. Lowlands thus formed at the mouths of rivers are known as deltas.

The Ganges and the Brahmaputra unite in making a large delta plain, crossed by a net-work of distributaries.

For ages the Mississippi river has carried down large quantities of silt and built its flood plain far out into the Gulf of Mexico, making a great delta.

The Nile carries a large amount of rock waste to the Mediterranean Sea and there adds to a great delta that has been growing for ages.

3. *To what causes is the long winter polar night due?*

The long winter polar night is due to the inclination of the earth's axis to the plane of its orbit ; to the unvarying position of the earth's axis, as to direction ; to the revolution of the earth around the sun. Its circular limitation is due to the rotation of the earth on its axis.

4. *What geographical causes produce the difference between the South American Pampas and the Asiatic Steppes?*

The Asiatic steppes are south of the forest belt in a region where the moisture is not sufficient for trees, but enough for grasses.

In summer moist northeast winds from over the Atlantic bring the wet season to the pampas, and the grass is tall and thrifty. In the interior parts much removed from the sea the rains are not so heavy. This region has its dry season in the winter.

The differences are accounted for by noting that the pampas are near enough to the Atlantic ocean to receive abundant moisture during the wet

season. The Asiatic steppes are far inland where the rainfall is light at all seasons, there being no geographical feature to cause wet and dry seasons, but the summers are very hot and the winters very cold.

5. *Why are the winds that strike the south side of the Pyrenees warm, moist winds, while those on the north are dry and cold?*

They are not so throughout the year. In winter a southwesterly wind from the ocean sweeps over the land, but it does not carry much moisture to the Pyrenees. In July, the winds are from the northwest, and bring moisture which is condensed on the north side of the mountains. At irregular times westerly winds from the Atlantic blow over the land and hold most of their moisture until they reach the Pyrenees, or the Cantabrians, where it is condensed as rain. South of the Pyrenees, in the vicinity of the Mediterranean, during the summer, local winds blowing from the sea bring moisture which is condensed on the north side of the mountains.

6. *What countries constitute the three great peninsulas of southern Europe? Historically, which is the most interesting? Why?*

Spain and Portugal, Italy, and Greece. The last is the most interesting, because of its great advancement in the past in art, education and civilization.

7. *"In the sixth and seventh years the aim of geography should be the study of man in the various parts of the globe, living in different zones, surrounded and affected in his institutional life by different climatic conditions, mountains, plateaus, valleys, oceans and inland waters," State Course of Study. Discuss the above.*

The child's previous work has been, presumably, of that nature and extent to warrant a clear and satisfactory understanding of the work of these years. The environment—climate, relief, water, life (animal and vegetable)—should be most thoroughly and accurately understood and appreciated by the pupil. Comparisons of the different effects produced by different environments should be carefully noted and whenever possible, general conclusions or principles evolved.

SCIENTIFIC TEMPERANCE.

1. *Explain how it is that alcohol in the system tends to retain waste products in the blood.*

When any alcohol is present in the circulation, its greed for water induces the absorption of moisture from the red globules of the blood, the oxygen carriers. In consequence, they contract and harden, thus becoming unable to absorb, as theretofore, the oxygen in the lungs. Then, in turn, the oxidation of the waste matter in the tissues is prevented; thus the corpuscles can not convey carbon dioxide from the capillaries, and this fact means that some portion of refuse material, not being thus changed and eliminated, must remain in the blood.

2. *What becomes of the alcohol not consumed by the body?*

It is excreted by the lungs, the kidneys and the skin. Some may be retained by the brain and the liver for several days.

3. *Is alcohol a preventive of disease? Explain.*

The effects of alcoholics are to reduce the temperature of the body, to narcotize the system, to reduce the life forces, to interfere seriously with the normal functions of the vital organs. It not only does not prevent disease but predisposes the system to all kinds of disease.

4. *What is meant by the "smoker's sore throat"?*

It is a disease caused by the effect of tobacco on the throat, through its poisonous and irritating effects.

5. *What is hashish? Who are addicted to its use? What is its effect on the system?*

Hashish is the juice of the Indian hemp plant, and is sold as a medicine under the name of *cannabis indica*. In southern Asia it is extensively used as a narcotic. It produces a happy delirium, in which a person sees most beautiful persons and figures. The state is really a temporary insanity in which one is liable to injure others. The word "assassin" means one under the influence of hashish.

6. *State the usual mental and moral effects of the habitual use of opium.*

A little of the drug acts partly as a real stimulant, causing the cells to act more vigorously and clearly. At the same time its benumbing action is beginning, the mind is befogged, and thought and reason are impossible. The moral sense is extinguished, persons once honest resort to fraud and theft, if need be, to obtain the drug, till at last, health, character and life itself all become a pitiful wreck.

PHYSIOLOGY.

1. *Give some points of similarity between the bones of the arm and leg.*

In similarity they pair off as follows: The humerus and femur; radius and tibia; ulna and fibula; carpals and tarsals; metacarpals and metatarsals; phalanges with phalanges. In the first three pairs mentioned, all have the same general shape—a long, compact shaft with two enlarged, sponge-like, cartilage-tipped extremities. The olecranon process of the elbow corresponds to the patella. Among the bones of the other pairs mentioned above, there is great similarity of form.

2. *What are tendons? Where are they found? Of what mechanical advantage are they? Cite a specific case.*

Many muscles taper into very strong cords of white, fibrous tissue called *tendons*. These are inserted into bone. They are found where large and prominent muscles in their places would be clumsy and inconvenient; as in the wrist or ankle. They permit free action and occupy but little space.

3. *What are some of the effects of too little exercise?*

Sluggish circulation, flabby muscles, poor digestion, and at last, general debility.

4. *Explain the importance of salt as a food.*

It improves the flavor of many foods, promotes certain digestive secre-

tions and meets the nutritive demands of the body. Some kinds of albumin in the body will dissolve in water only when salt is present, and if it is diminished in amount, or is absent, these albumins become solid so that the cells containing them are killed. Salt dialyzes very readily, and also aids in the dialysis of all kinds of food. About one-half ounce needs to be eaten each day.

5. *Give a general description of the circulation of the blood through the body.*

In making a complete circuit of the body the blood passes through the *left auricle* and through the *mitral valve* to the *left ventricle*; then past the *left semilunar valve* to the *aorta*, then through the *arteries* to all parts of the body; then through the *capillaries* into the *veins* and back to the *heart*; next through the *right auricle*, then the *right ventricle*, then through the *pulmonary artery* to the *capillaries of the lung*; then through the *pulmonary veins* to the *left auricle* once more. The circuit of the body in general is called the *systemic circulation* and that through the lungs is the *pulmonary circulation*.

6. *Explain fully what you understand by reflex action. Discuss the importance of reflex action, and give several illustrative examples.*

A reflex action is one that brings about a movement independent of the will or of consciousness. The sudden start of the whole body at some loud noise, the instinctive dodging of a threatened blow, and the springing back from sudden danger, are the result of reflex action. Reflex action is thus a marvelous provision of nature for our comfort, health and safety. The fact that the gray cells of the spinal cord can originate a countless number of reflex and automatic activities is not only of great importance in protecting the body from injury, but increases vastly the range of the activities of our daily life. Even walking, riding the bicycle, playing on a piano and numberless other such acts may be reflex movements.

7. *Describe the organs of speech.*

The chief organs of speech are the larynx and the vocal cords. For description, see any good text-book.

8. *By what simple means may a teacher illustrate the phenomena of circulation, including pulsation and continuous flow of blood.*

By means of a syringe, a rubber tube, and a glass tube tapering down to a capillary point. Attach a piece of rubber tube six or eight feet long to the delivery end of the syringe. To represent the resistance made by the capillaries to the flow of blood, slip the large end of the tapering glass tube into the outer end of the rubber tube. Place the syringe flat, without kinks or bends, on a desk or table. Press the bulb slowly and regularly. The water is thus pumped into the tube in an intermittent manner, and yet it is forced out of the tapering end of the glass tube in a steady flow. (See page 201, Blaisdell's Practical Physiology.)

READING.

1. *What close relation exists between the ability to read well and other lines of study?*

Ability to read well means ability in interpreting language, in gather-

ing the thought accurately from the page; and this ability is more necessary than anything else in making progress in any other line of knowledge. For, unless the language is interpreted correctly, correct relations can not be perceived or proper judgments formed.

2. *What can be done to give pupils a knowledge of what to read as well as how to read?*

Reading good and interesting books to children, and thereby creating in them a love for the best literature; loaning the books to them; calling their attention to what is best for them and why; enlisting the aid of the parents; suggesting the periodicals that should be taken, are some of the things that can be done to give pupils a knowledge of what to read.

3. *What connection has vocal training with good reading?*

With oral reading vocal training has a very intimate connection. Vocal training improves articulation; breathing; and quality, quantity and smoothness of tone; all of which, when well done, very greatly improve oral reading.

4. *What three things does the process of reading involve?*

Oral reading involves the recognition of the symbols, their interpretation, and the vocal expression of the language embodied in it.

5. *Of what importance is "reading aloud?" In your judgment is too much or too little emphasis placed upon it in our schools?*

It is of very great importance. To read aloud well is a power very few possess, and those who can read well orally are much sought for and honored. Yet many could be thus gifted, if teachers were led to see the importance of it. When one can read well orally, he can afford pleasure to others as well as to himself. Oral reading, besides giving the vocal organs healthful and valuable exercise, also strengthens the power and speed of interpretation in silent reading. Too little emphasis has been placed upon "reading aloud" in our schools.

6. *Explain what is meant by reading as thought and reading as art.*

Reading as *thought* is the mind's thinking the thought of the author as the reader passes his eyes along the lines, and perhaps between them.

Reading as *art* is the vocal expression of the language embodying the thought in the lines.

7. *Comment on the following statement: "Words should be studied both in literature and in the dictionary."*

We see a word in a piece of literature and look for it in the dictionary. Here we find its various meanings, all of which we should note with care, and one of which we must select judiciously to suit the context in which we found it. We have thus studied the word generally and specifically, both of which acts will prove beneficial.

8. *Write a paragraph on "The chief results to be accomplished by a proper teaching of reading in the grades."*

The pupil should be able to read well orally and silently; he should have a liking for good literature, and for no other kind; his intelligence

should be strong and reliable, and his language indicative of good training, thought and morals; and his ideals of life should be noble and dignified.

GRAMMAR.

1. *Discuss briefly the study of language:*

- (a) *As the substance of thought.*
- (b) *As the form of thought.*
- (c) *As an act.*

Language is the framework of thought, of which ideas form the substance. The study of ideas necessitates the general study of the laws of mind, and the special study of the reasoning faculty,—that is, it necessitates the study of mental science and logic.

It is of the utmost importance that we study also the form of this framework of thought, that we may be enabled to choose the most fitting material and to arrange its parts with the utmost precision, in order that the structure when expressed will be neat, well-balanced, and effective.

As an art, the study of language is invaluable. This phase is much neglected. The study of sentence structure in all its details, the frequent reading and writing of the best models of English style, and the constant practice of correct forms of speech,—all combined form the field of work to be undertaken by every person who desires to gain rich rewards from the study of language as an art.

2. *Follow the development of language culture in its adaption to the age and educational advantages of the child, pursuing an outline somewhat as follows:*

- (a) *The period when the conversation shall constitute the chief means of instruction.*
- (b) *The introduction of narratives, their character, and use.*
- (c) *The study of the object, its purpose and value.*
- (d) *The period when the reading lesson may profitably be used in language culture and how used.*
- (e) *The memorizing of poems and memory gems and the gain to be realized therefrom.*
- (f) *The written exercises—when and how made use of.*

As soon as the child begins to understand language, its instruction by conversation should begin; and this kind of instruction should continue in some degree or to some extent, as long as life. It is even difficult to tell *when* it should cease to be the *chief* means of instruction. No rules are mentioned, and the child learns by imitation and by frequent and judicious practice. As early as the first school year, the teacher should use simple narratives of great men, or of interesting historical incidents, or of instructive incidents of common life, to induce the children to talk, that she may be given the opportunity and the material for her language instruction.

A little later, in the second year, the study of the object may be begun. Its chief purpose is to enlarge the vocabulary of the pupil and to develop his power of observation. In this work he grows stronger in his power of constructing complete sentences, and he learns something about their

arrangement in a written description. This kind of culture may be continued with profit throughout the school life of the pupil.

There is no certain definite period when one of these phases of work should be entirely discontinued and another one begun. As early as the second reader grade, the reading lessons may profitably be used in language culture, by conversation upon the material of the lesson ; by a study of the words of the lesson ; by brief written exercises upon certain phases of it.

Much gain, lasting as long as life, is to be obtained by the memorizing of poems and "memory gems." The child by such culture stores away in his mind grand noble ideas, that become his daily guides in living a useful, manly life. Written exercises should be part of the work at all times after the child is able to write. The teacher should show the pupils how to criticise these productions, in order that they may reap the benefit derived from criticising some of them themselves.

3. *Analyze the following :*

Scaling yonder peak

*I saw an eagle wheeling near its brow,
O'er the abyss. His broad expanded wings
Lay calm and motionless upon the air,
As if he floated there without their aid,
By the sole act of his unlorded will,
That buoyed him proudly up.*

The first sentence closes with the word "abyss," and presents no difficulty. "Scaling" modifies "I." The second sentence is complex ; "calm" and "motionless" are predicate adjectives. The first subordinate clause "As if he floated there," etc modifies "Lay," as an adverbial clause, denoting manner ; "without their aid" and "By the sole act of his unlorded will" are phrases modifying "floated ;" the second subordinate proposition, "That buoyed him proudly up," is an adjective clause modifying the antecedent "will." "As if" may be considered a subordinate connective.

ARITHMETIC.

1. *What facts regarding the number six would you teach to a class of primary pupils? State briefly how you would develop a knowledge of each fact.*

The group six should first be taught ; then the several different divisions that may be made of this group ; the several results that may be obtained by taking one away from the group, then two, then three, etc. ; each division, separation, or arrangement, must be recited by the pupil. The whole exercise must be illustrated concretely.

2. *Is there anything learned in the study of common fractions that may be utilized in the teaching of percentage?*

A per cent. may be written as a common fraction. A certain per cent. of a number means a certain fractional part of that number. In fractions, the pupil learns to take a fractional part of a number ; and whenever possible or advantageous in percentage, he should be taught to read the per cent.

as a fraction. He then sees that there is nothing new to learn in this particular feature, and to a great extent the subject of percentage becomes much simplified to him.

3. *What is the sum of three thousand nineteen; four hundred twenty six; seventy-five million, thirty-three thousand six; twenty-seven hundred and twenty-seven hundredths; four thousand three hundred five and thirty-five millionths; eight million, seven hundred three thousand, and forty-five hundredths; and sixty-five tenths?*

Answer, 83746513.220035.

4. (a) *The minuend is 37,563, the remainder, 8,563; what is the subtrahend?*

(b) *The dividend is 4,783; the quotient is 177, and the remainder 4; what is the divisor?*

Answer, (a) 29000; (b) 27.

5. *A man purchased a house for \$3000. He estimated repairs at \$60, the taxes at \$30, and insurance at \$10 per annum. At what must he rent the house to net him 10% per annum?*

If this means 10% per annum on the value of the house, the answer is \$400. If it means 10% per annum on his total yearly investment, the answer is \$410.

6. *The walls and ceiling of a room 20 feet long, 16 feet wide, and 12 feet high, were painted at a cost of 12½ cents a square yard, no deductions being made for doors and windows. What did it cost?*

$(20 + 20 + 16 + 16) \times 12 = 864$; $20 \times 16 = 320$; $864 + 320 = 1184$ (square feet) = $131\frac{1}{3}$ (square yards). At 12½ cents a square yard, this amounts to \$16½.

7. *A, B, and C dissolved partnership, dividing the profits which amounted to \$8500. A's Capital of \$5000 had been invested for one year; B's of \$3000 for 10 months, and C's \$10000 for 6 months. What was each partner's share of the profits?*

$5000 \times 12 = 60000$; $8000 \times 10 = 80000$; $10000 \times 6 = 60000$; $60000 + 80000 + 60000 = 200000$; hence, the parts of the profits of A, B, and C are respectively $\frac{3}{10}$, $\frac{4}{10}$, and $\frac{3}{10}$; therefore their shares are \$2550, \$3400, and \$2550 respectively.

8. *I bought 10000 pounds of buckwheat flour at 2 cents per pound, freight costing me 8 cents per hundred weight, drayage \$1.20, and sacks \$3.00. What per cent. profit did I make by selling it at 3 cents per pound?*

10000 lbs. @ 2 cents = \$200; 10000 lbs. @ 8 cents per C = \$8.00; \$200 + \$8.00 + \$1.20 + \$3.00 = \$212.20; $\$300 - \$212.20 = 87.80$; $87.80 \div 212.20 = .41$; therefore, 41 + per cent.

9. *A merchant sold a hat for \$3 and thereby made 25% profit. Had he sold it at \$2.80, would he have gained or lost and what per cent?*

$125\% = \$3$; $100\% = \$2.40$; $\$2.80 - \$2.40 = \$.40$; $.40 \div 2.40 = \frac{1}{6} = 16\frac{2}{3}\%$, gain.

10. Multiply the sum of 40.309 and 26.509 by the difference between 8.025 and 3.275 and divide the product by .36.

Answer, 881.62638.

SCIENCE OF EDUCATION.

1. *What is the object or aim of all philosophical investigation?*

In the educational field the object or aim of all philosophical investigation is to find a central guiding idea or principle to which all other ideas or principles pertaining to educational development can be compared, regulated, and arranged so as to form a consistent whole.

2. *How does the method of philosophical investigation differ from the scientific method of investigation?*

Generally speaking, in the scientific method of investigation, we deal with individual facts and form inductions; in the philosophic method of investigation, we deal with general principles and form deductions.

3. *What was the condition of philosophical studies in Greece before Plato?*

The environment of the Greeks, and their frequent contact, through commerce, with other and adjacent countries and peoples, gave them new ideas and developed in them a spirit of inquiry and investigation. Various general questions in regard to natural phenomena, they propounded and, in their own way of thinking, they answered them. Amidst these philosophical inquiries, perplexities and conflicting theories, some of the Greeks came to the conclusion that philosophy was a failure; that there was too much difference in things and too many changes constantly taking place to be consistent with an absolute immutable law governing everything. (See p. xiv to xx.)

4. *Give the time and place of Plato's birth, with any additional facts concerning his early life that you may know.*

See page xxii.

5. *Describe the condition of Athens at the time of Plato's birth.*

See page xiii.

[The statement in "Plato" that at the time of Plato's birth Athens "was then at the height of its prosperity" is not strictly correct.]

6. *The Apology: (a) Under what circumstances composed? (b) What is its main object? (c) State the general structure or plan.*

(a) Under the circumstances connected with the trial and execution of Socrates.

(b) To set forth the main points of the life and character of Socrates.

(c) 1st, Socrates's defense; 2nd, his speech in regard to the penalty imposed; 3rd, his remarks to his accusers and his talk to his friends.

SHELBYVILLE added two new school buildings in '96 and extended the high school course to four years, and yet the number in the high school has reached one hundred fifty, double the attendance four years ago. J. H. Tomlin is superintendent.

MISCELLANY.

EVANSVILLE gives diplomas to pupils completing the eighth year.

ATTICA.—Eight girl graduates made up the class of '98 and it was a good one.

THE Earlham College catalogue for 1897-8 makes a good showing. Send for one.

PURDUE UNIVERSITY has published an amendment of courses of study. It can be had for the asking.

The New England Anti-Vivisection Society Monthly published in Boston will be of interest to many people.

THE Tippecanoe County schools are in excellent condition. Music in the district schools has had special attention.

THE Winona Summer School, located at Winona Lake, deserves liberal patronage. See advertisement on another page.

C. M. MCDANIEL puts his farewell words to his senior class into print and gives a copy to each member of the class as a "souvenir."

"THE CARNATION" is the name of a very creditable and uniform publication by the senior class of Alexandria. It displays taste and ability.

"THE ANNUAL," published by the senior class of the Ft. Wayne high school, is a creditable piece of work, intellectually and mechanically.

THE CORYDON SCHOOLS closed a very satisfactory year under the direction of J. W. Riddle. The high school commencement gave universal satisfaction.

THE Lima high school graduated eleven from its senior class this year. Superintendent Gilhams gave the class a banquet at the close of the graduating exercises.

UNION CHRISTIAN COLLEGE at Merom is more prosperous than for many years. The last graduating class was one of the largest in the history of the college. L. J. Aldrich, D.D., is president.

MITCHELL.—The commencement of the Southern Indiana Normal will occur July 17-21. This year has demonstrated the fact that Southern Indiana teachers find their needs amply supplied in the above institution. The next year will open Sept. 6.

THE State Normal School held its commencement this year, June 30, and the senior class numbered 96. The address was made by Jenkins Lloyd Jones, of Chicago. Professor Parsons made the baccalaureate address to the class, his subject being "Higher Indiana."

THE Pulaski County Summer Normal will open July 18, at Winamac. A. T. Reid, superintendent of the city schools and J. H. Reddick, superintendent of the county schools are the principal instructors. This county always has a good normal followed by a good institute.

JASPER.—The program for the first annual commencement of the Newton Street school is at hand and it is hard to beat. There were five graduates. Rev. Simon Barker, O. S. B., made the class address and County Superintendent Geo. R. Wilson presented the diplomas.

THE school board at Argos, Ind., have shown both appreciation and good judgment by re-electing Superintendent L. Q. Martin for the fifth time. Under the able administration of Superintendent Martin the schools of Argos have improved very much during the past six years.

THE Morgan County Normal conducted by W. D. Kerlin and J. E. Robinson numbers about eighty and is well instructed. Both these men are

superior teachers and they are ably assisted by Miss Lulu Clark in the primary work, and by C. W. Eaton in the science department.

THE AMERICAN BOOK COMPANY publishes a number of text books on Spanish. Our relations with Cuba and other Spanish countries for some years to come are likely to make the Spanish language of much more value than in past years. A list of these books can be had for the asking.

CRAWFORDSVILLE has now as fine a school building as any city. It was occupied for the first time in January. It is built of Bedford stone, contains eight rooms and is on an elegant plot of ground. Superintendent Kenaston has been re-elected at an advance of \$200 in salary. Commencement occurred June 7 with twenty-six graduates.

EVANSVILLE.—The *Courier* in a twenty-four page edition gives a complete history of Evansville and of its leading citizens and leading industries. Among its prominent citizens W. A. Hester, superintendent of schools, is given a conspicuous place. His work for the city in building up a superior system of schools is spoken of in unqualified terms of praise.

Editor Indiana School Journal.—It would be interesting to see the proposition announced on page 406 of the June JOURNAL, applied to the following problem: "Where shall a pole 90 ft. high, be broken that the top may rest on the ground 60 ft. from the base?" Respectfully,

Bloomington, Ind.

ROBT. J. ALEY.

HUNTINGBURG.—J. T. Worsham, the superintendent, has been elected by a unanimous vote for the fifth year. The new \$10,000 high school building will be ready September 1, and the enrollment will be the highest in the history of the school—75 pupils. Additional teaching force will be employed. Two fine compound microscopes have been added to the biological laboratory.

W. S. ALMOND, chairman of the executive committee of the State Association, reports the program for the next meeting well in hand. It has been definitely settled that a full half-day shall be given to the subject of "Nature Study," and the leading paper is to be by John M. Coulter. The leading idea of the meeting will be to deal with but few subjects and to give them ample time. The plan is an excellent one.

THE RICHMOND ART EXHIBIT was a great success. It consisted of work by the school children, work by local artists, a loan exhibit and various other minor departments. Probably the most interesting portion is the collection loaned by the Hon. William Dudley Foulke, which consists of twenty-six pictures, a number of which are by the old masters. All the school children and most of the citizens were in attendance and the results are highly satisfactory. Supt. T. A. Mott has reason to congratulate himself and the school.

WINONA ASSEMBLY AND SUMMER SCHOOL will have seventeen teachers, all college professors. Prof. John M. Coulter, Chicago University, Principal. School opens July 5th, six weeks term. Program begins July 4th and closes August 28th. Fine hotels, boarding houses and private cottages. Board, including room, from \$5 to \$12 per week, according to the location. Board and room in farm houses for limited number at \$3 per week. Winona Lake (near Warsaw) is three miles in length; deepest lake in the state. Entire grounds shaded by magnificent growth of forest trees. Write for particulars and program to S. C. Dickey, General Manager, Winona Lake, Indiana.

MT. VERNON may justly feel proud of her excellent system of public schools. Never before, have the schools been in as good a condition as they are at present. At no time have our schools done as good work as they have done this year. The many excellent results of the work done go to prove that Prof. E. S. Monroe is a most efficient superintendent and the right man

in the right place. He has the welfare of the schools at heart, and is full of love for the grand school work he is striving to accomplish. He is an earnest and untiring worker and leaves nothing undone that tends to better the condition of the schools. He deserves much praise for the excellent work he is doing.—*Sun, June 10, 1898.*

THE READING CIRCLE BOOKS FOR TEACHERS FOR 1898-9.

1. "Plato's Republic," edited with extensive comments by Dr. W. L. Bryan. Price 65 cents. Teachers who already have "Plato, the Teacher," need not buy this book; but such persons will probably wish to buy the editor's notes and comments, which will be published separately. Price, 35 cents.
2. "Social Elements," by Professor C. R. Henderson, of Chicago University. This is a book on sociology written with the school as the centre. Price 90 cents.

The teachers' books can be had of county superintendents. Published by Chas. Scribner's Sons, New York.

ANOTHER NORMAL SCHOOL.

Indiana is to have another private Normal School. F. A. Z. Kumler, who has had twelve years of successful experience as president of a private normal school in Missouri, has been substantially backed by the enterprising citizens of Muncie, and will open a school in that city next September. Mr. Kumler has been traveling over the country far and near in search of good men and women for his faculty. His ideas of a normal school are very sane and if he succeeds in finding the kind of material he is hunting for, there is no doubt in the writer's mind as to the quality of work the school will do. Muncie is a promising place for such a school, and if the school will do the right kind of work it will be welcomed by those who have Indiana's educational welfare at heart.

INDIANA CHILD-STUDY ASSOCIATION.

The members of the Executive Board of the Indiana Society for Child-Study, held a meeting at the Grand Hotel in Indianapolis, on the 29th of May. Professors Sanford Bell, Howard Sandison, E. B. Bryan and Superintendent F. A. Jones were present.

On account of the city schools of Huntington having closed on the 27th, Superintendent Hamilton's duties kept him from being present. The meeting was called by the president of the society for the purpose of discussing and formulating plans for the society's work in the State during the current year. It was decided to draft a constitution to be submitted to the Association at its next meeting at Indianapolis during the holiday season. The committee will also draw up definite plans for the organization of local Round Tables over the State and indicate the way in which they are to be articulated with the Central Society. A short historical sketch of the work that has been done by the State Society since its organization will be made, also reports will be called for from the various local societies over the State, indicating what has been done and what plans are laid for the future work. A publication by the society is to be issued this summer in which will be incorporated the proposed constitution, the plans for local organization, the historical sketch, the reports from over the State and whatever else may seem wise to the executive committee. This publication is, of course, to be put into the hands of those interested in the child-study work in the State. The entire outlook in the State is very encouraging. The society hopes for an unusually fruitful year.

Y. P. R. C. BOOKS FOR 1898-9.

These books can be had at the prices named by addressing the manager, Geo. F. Bass, Indianapolis.

| SECOND YEAR. | | PRICES. |
|----------------------------|--|---------|
| 1. | The Plant Baby and Its Friends..... | \$0.37 |
| 2. | The Picturesque Geographical Reader, Book I..... | .38 |
| 3. | Stories of the Indian Children..... | .34 |
| THIRD YEAR. | | |
| 4. | (1) Stories of Greek Gods, Heroes and Men..... | .42 |
| 5. | (2) The Picturesque Geographical Reader, Book II.. | .60 |
| 6. | (3) Four Great Americans..... | .39 |
| 7. | (4) The Life of a Honey Bee. (Buz.)..... | .60 |
| FOURTH AND FIFTH YEARS. | | |
| 8. | (1) The Fast Mail..... | .90 |
| 9. | (2) Stories of Long Ago..... | .28 |
| 10. | (3) Things Will Take a Turn..... | .70 |
| 11. | (4) Three Young Continentals..... | .90 |
| SIXTH AND SEVENTH YEARS. | | |
| 12. | (1) The Old Log School House on the Columbia..... | .90 |
| 13. | (2) Tommy—Anne and The Three Hearts..... | .88 |
| 14. | (3) True to His Home..... | .90 |
| 15. | (4) Stories From English History..... | .38 |
| EIGHTH AND ADVANCED YEARS. | | |
| 16. | (1) The Story of the Indian..... | .90 |
| 17. | (2) National Epics..... | .88 |
| 18. | (3) Getting on in the World..... | .85 |

COUNTY SUPERINTENDENTS' CONVENTION.

About sixty of the county superintendents met in their annual convention, June 21-22. Several topics of interest were discussed and all returned home profited.

W. H. Senour read an excellent paper on "The use of Supplementary Work in the State Course of Study." The discussion brought out the fact that many of the superintendents are dissatisfied because some parts of the course of study are not based on the adopted text books, and that the average teacher cannot follow the course of study and at the same time use the adopted books to advantage.

"Value of the Common School Diploma" was the subject discussed by Superintendent Clapham, of Whitley county. Mr. Clapham would do away entirely with the diploma. A majority of the superintendents, however, thought that the diploma properly used and not abused, is a good thing.

Superintendent J. H. Grover, of Clinton county, reviewed the supreme court's decision in regard to abandoning small schools. The case went from his county. See a statement of the decision on another page.

Superintendent W. F. Byrket, of Henry county, read a paper on "The Compulsory School Law," which was generally approved. He heartily commended the law but recommended several amendments.

Superintendent Sullins, of Tippecanoe county, thought the law a failure and that it should be repealed. So far as the discussion developed the opinion of the superintendents Mr. Sullins stood alone in the opinion that the law should be repealed. The testimony of all the others was to the effect that the law had done much good and should be amended in some particulars and be enforced.

In the absence of Dr. J. N. Hurty, Deputy Superintendent F. A. Cotton read his paper on "Sanitary Conditions in Our School Houses." The paper severely criticised the condition of certain school houses which the Dr. had visited and made a plea that the health and lives of the children should not be put in jeopardy while getting an education.

The president appointed as a committee on legislation—J. W. Sullins, James R. Wilson and Geo. W. W. Sully.

The officers for next year are: L. H. Scott, New Albany, President, and L. H. Hamilton, Rensselaer, Secretary. The officers of this meeting were E. G. Machan, Lagrange, President, and J. R. Wilson, Warrick, Secretary.

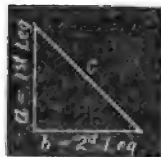
THAT PROBLEM.

Editor Indiana School Journal:

In the problem, "Where shall a pole 120 ft. high be broken that the top may rest upon the ground 40 ft. from the base?" I notice in the June number a solution by E. E. Ellis, of Farmersville. The hypothesis Mr. Ellis assumes is incorrect which he may easily verify by taking the same problem but making the pole 200 ft. high. I can not imagine how he fell into such an error. I submit the following rule for the solution of the problem and show how the rule is derived.

RULE.

In any right-angled triangle the square of the sum of the hypotenuse and first leg less the square of the second leg, this difference divided by twice the sum of the hypotenuse and first leg equals the first leg. (Either base or perpendicular may be considered first leg.)



$$\text{Formula, } \frac{(a+c)^2 - b^2}{2(a+c)} = a$$

$$(120)^2 - (40)^2 \div 240 = 53\frac{1}{2}$$

From this the other parts may be found.

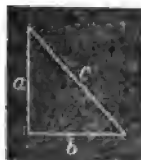
DERIVATION OF RULE.

$$\begin{array}{ll} a^2 + b^2 = c^2 & \text{adding and} \\ a^2 + 2ac = a^2 + 2ac & \text{transposing } b^2 \end{array}$$

$$2a^2 + 2ac = a^2 + 2ac + c^2 - b^2$$

$$a(2a + 2c) = (a + c)^2 - b^2$$

$$\text{Where } a \text{ is first leg, } a = \frac{(a+c)^2 - b^2}{2(a+c)}$$



$$\begin{array}{ll} a^2 + b^2 = c^2 & \text{adding and} \\ b^2 + 2bc = b^2 + 2bc & \text{transposing } a^2 \end{array}$$

$$2b^2 + 2bc = b^2 + 2bc + c^2 - a^2$$

$$b(2b + 2c) = (b + c)^2 - a^2$$

$$\text{Where } b \text{ is first leg, } b = \frac{(b+c)^2 - a^2}{2(b+c)}$$

I do not know that this rule is in any of our arithmetics but it ought to be there as a guide when such problems as this are given for solution. As all our rules in mensuration as well as the rules for finding the hypotenuse and the two legs of a right-angled triangle when any two sides are given or

derived by geometrical solutions, so I derive this rule and by it solve the problem and when solved by the rule it is an arithmetical solution.

Respectfully,

Geneva, Ind.

S. A. M. BUTCHER.

PERSONAL.

A. C. MOOSE will serve his second year at Kouts.

GEO. B. ASBURY will be superintendent at Flora again.

J. L. CLAUSER will be principal at Rossville—fourth year.

WM. G. MOULTON will continue as superintendent at Parker.

F. H. HUNTWORK has been elected principal of the Clay City schools.

T. H. MEEK has been promoted to the superintendency at Lawrenceburg.

F. M. BEARD has been retained as superintendent of the Hartford City schools.

A. T. REID has been re-elected superintendent of the schools at Winamac.

C. H. DRYBREAD will continue as principal of the high school at Hartford City.

H. N. COFFMAN returns to Middletown as superintendent. This is his third year.

W. E. MILLER has been promoted to the principalship of the Portland high school.

CHAS. H. WOOD has been unanimously re-elected superintendent of the Valparaiso schools.

J. W. RHODES, of Rush County, has been spending the spring term in Indiana University.

SAMUEL M. INGLIS, State Superintendent of Illinois, died recently of nervous prostration.

I. N. WARREN, of Rensselaer, I. U. '97, will take the principalship of the La Porte high school.

HATTIE COCHRAN, a graduate of I. U., will teach history in the Lebanon high school the coming year.

FRED CORY, a Wabash College graduate, takes charge of the Lebanon high school the coming year.

J. E. McMULLAN will continue as teacher of English in Monticello high school at an increased salary.

MILO MILLER, class '98, State Normal, is to be ward principal of the West Side School, Logansport.

MISS N. CROPSY has been re-elected assistant superintendent of the Indianapolis schools at a salary of \$2,500.

J. H. SCHOLL, who spent the past year at Indiana University will have charge of the Carthage schools next year.

J. S. RAGSDALE has given entire satisfaction as superintendent of the schools at North Judson and will be retained another year.

D. A. COATE, a graduate of both the State Normal and of the State University, is the new principal of the Shelbyville high school.

CHARLES A. PETERSON, teacher of science in Lebanon for the last two years, will take a similar position in the Muncie high school.

ELAM HENDERSON, of Lawrence, Kansas, has been chosen principal of Fairmount Academy to take the place of E. O. Ellis, resigned.

A. E. MALSARY for many years superintendent of the schools at Thorntown, has been elected superintendent of the Peru schools.

E. G. BAUMAN has been retained as principal of the Mt. Vernon high school with J. W. D. Butcher and Miss Effie Grimes as assistants.

SUPERINTENDENT COPELAND, of Fairmount, has been re-elected for another year. He will put in a good physical laboratory for next year.

W. P. HART has been re-elected superintendent of the Covington schools, and James F. Willis has been chosen principal of the high school.

W. H. GLASSCOCK took his degree of A. B. at Indiana University in June and will spend next year in Chicago University in earning another degree.

CHARLES F. PATTERSON, superintendent of the Edinburg schools, received the degree of A. B., at the last commencement, from Franklin College.

MISS MARY E. NICHOLSON still continues at the head of the Indianapolis Training School. Miss Nicholson is one of the strong women of the country.

MRS. LEVA M. FOSTER, superintendent of the North Vernon schools, and her entire corps of teachers recently spent two days visiting the Indianapolis schools.

GEORGE W. HUFFORD has again been elected to the principalship of the Indianapolis high school. The school never had a more efficient or more popular teacher.

E. O. ELLIS, for many years a prominent educator, has resigned the principalship of Fairmount Academy to accept the pastorate of the Friends' church, at Richmond.

LAURA B. CARTY, of Annapolis, has been re-elected to a position in the West Superior, Wis., schools at an increased salary, but will spend her summer vacation at home.

CHAPLAIN W. D. WEAVER is with the 160th Indiana Regiment, and is located at Chickamauga. He wishes to be remembered to "the boys" and would be glad to hear from them.

W. D. KERLIN will spend a part of the summer in Chicago University. He was there last year. Mr. Kerlin leaves nothing undone that will help him to do the best possible work.

O. G. STANTON has been promoted to the head of the Irvington schools, to take the place of Albert J. Brown, who resigned to take the pastorate of the Friends' church in Indianapolis.

PROF. W. H. MACE, of Syracuse University, but a Hoosier, will return to his native state to do some institute work this summer. The counties that secure his services are fortunate.

H. H. KREP will remain in charge of the Waterloo schools, with J. P. Bonnell principal of the high school. The announcement for the coming year indicates that a skilled hand is at the helm.

HENRY HIPPENSTEEL, who was last year principal at Roann, has accepted the superintendency at North Manchester. He is an Indiana University man and spent some time at Chicago University.

GEO. F. BASS, State manager for the Y. P. R. C., having given up *The Young People*, has some leisure time and is willing to do some work in institutes. He is one of the best institute workers in the State.

A. R. HARDESTY has made a good record at Hobart during the past

three years and will have an opportunity to continue the good work, at least for another year, and perhaps for as many more as he shall choose.

J. E. ROBINSON has been re-elected principal of the Martinsville high school, but owing to bad health has not yet accepted. He is well liked and is a superior teacher. It is hoped that his health will speedily improve.

CHAS. E. EMMERICH, principal of the Industrial Training School, was recently surprised by a banquet tendered by some of his friends in honor of the completion of his twenty-fifth year's work in the Indianapolis schools.

FRANK A. MANNY has completed his first year as supervising principal in the Indianapolis schools. His work has been eminently satisfactory. He will spend most of his summer vacation in Chicago University as an instructor.

W. A. JONES, the first president of our State Normal School, is still superintendent of the Institute for the Blind at Nebraska City. The JOURNAL believes that Indiana owes more to Mr. Jones, educationally, than to any other man, living or dead.

N. C. JOHNSON, who resigned the superintendency of the Cambridge City schools a few years ago, took his master's degree from Indiana University in June last, and has been elected superintendent of the Franklin schools at a salary of \$150 a month.

J. F. BROWN, last year instructor in philosophy in Indiana University, has accepted the position of vice-president of Earlham College and teacher of philosophy. Dr. Brown is entitled to high standing among the educators of Indiana. He is a good man in teachers' institutes.

E. M. C. Hobbs, of Salem, is a candidate for State Geologist, before the Republican convention. Mr. Hobbs is a graduate of the State Normal school and has had successful experience as a teacher. For some years past he has been engaged in scientific farming. He has a great liking for geological study.

J. F. HAINES, for many years superintendent of the Noblesville schools, was recently married to Miss Jennie Elliott, of LaGro. Miss Elliott is the daughter of a minister, a successful teacher and an accomplished lady. Mr. Haines made a narrow escape—he came fearfully near being an "old bachelor." The JOURNAL extends hearty congratulations.

W. W. PFRRIMMER, the Kankakee poet, can be induced to visit institutes and give evening entertainments. Mr. Pfrimmer is superintendent of Newton County and writes poetry as a pastime. His last volume, "Driftwood," contains some gems. His entertainments consist in the recitation of his own poems. The writer can testify that these entertainments entertain.

ELMER B. BRYAN, of Indiana University, has been elected general supervisor of the grammar grades in the Indianapolis schools at a salary of \$2,000. He had asked for a leave of absence with a view of studying the coming year when this unsought position was offered him. No man in the State is forging to the front more rapidly than is Professor Elmer B. Bryan.

ISAAC E. NEFF, Principal of the Portland high school has been promoted to the superintendency of the schools in place of C. L. Hottel. A public indignation meeting and a strong petition to the Board of Trustees would seem to indicate that Superintendent Hottel is held in high esteem by the people generally. THE JOURNAL holds both men in high regard and regrets very much the unpleasant condition of things.

JNO. COOPER, who is a charter member of the State Association and who has missed but few of its meetings, has accepted a position in Park College at Parkville, Mo., and will leave the State. This removal is to be

regretted. Indiana never lost a better man. Mr. Cooper was formerly superintendent at Richmond and later at Evansville, and for a few years past has been at the head of the Brightwood schools. In all places and in all relations, he "fills the bill."

EDWARD BARRETT, of Plainfield, received the nomination at the Democratic Convention, for State Geologist. Mr. Barrett was a student at the State Normal and also at DePauw University, is one of the best teachers in Hendricks County, and was for several years assistant superintendent of the Boys' Reform School. He is a man of thorough integrity and withal is one of the best fellows in the State. If elected, he will make an honorable, faithful, hard working officer.

E. G. MACHAN, who is now serving his eighteenth year as superintendent of LaGrange County, has decided to become a candidate for the Republican nomination for the office of State Superintendent. Mr. Machan is one of the leading superintendents of the State and was president of their last State convention. He is a man of unquestionable integrity and industry. He was one of the first superintendents in the State to employ as instructors in his institutes men of superior ability, even if he had to go out of the State for them.

W. B. SINCLAIR, of Knox, secured the nomination for State Superintendent at the hands of the Democratic State Convention. This is what was generally expected. J. W. Nourse, of Rockport, and Richard Vanderveer, of Kosciusko County, were also candidates, but Mr. Sinclair having been on the ticket two years ago, thus forming a large acquaintance, won easily on the first ballot. Mr. Sinclair is a graduate from the literary department of Purdue University, was for many years superintendent of Starke County, and stands well as an educator in the State. The fact that he has been given a second nomination is evidence that he has staying qualities and that he made a good impression the first round.

BOOK TABLE.

The Century Magazine for July will open with a story of the Cuban Insurgents, entitled, "By the Order of the Admiral," by Kingston Churchill, author of "The Celebrity." It will be fully illustrated by Cline-dinst. Another story which *The Century* has in hand for immediate publication is a Spanish American tale by Mrs. Schuyler Crowninshield, whose book, "Where the Trade Wind Blows" has recently attracted attention.

HISTORY OF THE UNITED STATES, for schools, by Wilbur F. Gordy. New York. Charles Scribner's Sons. Pages, 478. Price \$1.00 net. From

HORSFORD'S ACID PHOSPHATE

Delicious Drink

with water and sugar on y, makes a delicious, healthful and invigorating drink.

Allays the thirst, aids digestion, and relieves the lassitude so common in mid-summer

Dr. F. M. Henry, New York, says:

"When completely tired out by prolonged wakefulness and overwork, it is of the greatest value to me. As a beverage, it possesses charms beyond anything I know of in the form of medicine."

Descriptive pamphlet free

Rumford Chemical Works, Providence, R. I.
Beware of Substitutes and Imitations. 6t.

the first view we had of this book, inside and outside, we received a very favorable impression, and a thorough examination has convinced us that it is an exceptional book in many ways. No other book of the kind has so many fine and appropriate maps and illustrations. The suggestions to the teacher (Pages XIII to XVIII) are especially valuable on account of their practical, sensible, and helpful nature. At the close of each chapter is found interesting work for the pupil, consisting of topics, questions, and investigations. At the close of certain chapters are "Notes" giving additional information of a special character, and chronological reviews summarizing the chief events. To see the book is to want to use it.

MCMASTERS' HISTORY. School History of the United States. By John Bach McMaster, University of Pennsylvania. New York: American Book Company. Cloth. 507 pp. With numerous illustrations, charts, colored maps, diagrams, and tables. Price, \$1.00. Mr. McMaster is every way qualified to write a scholarly and popular school history, and he has done with great thoroughness, devotion, and skill that for which he is eminently qualified. Too much could hardly be said of the value of having a man with a great reputation as a specialist do his best work for use for the multitude of children. The book is a departure in many respects, but none of them become eccentric at his hand. After accounting for the origin of the United States in 150 pages, the author devotes 328 pages to its subsequent history under the constitution. An important feature is the elaborate presentation of the social, industrial, and economic development of the country. These are made of the first importance, and the effect they had on political history is shown. The book describes the home life and surroundings of the people, their domestic and industrial implements, their social and intellectual progress as well as their civil and political history. It includes chapters on such topics as the mechanical and industrial progress of the nation, the highways of trade and commerce at different periods, the growth of inventions, the rise of parties, the financial development of the country, and the progress of the people in the arts and sciences. The maps give vivid impressions of the early voyages, explorations, and settlements; of the chief military campaigns; of the territorial growth of the United States; and of the distribution of its population at different periods. The illustrations are reproduced from original drawings or material contemporaneous with the events described, and are novel and striking.

BUSINESS NOTICES.

MORE successful than ever—Indianapolis Business University.

BE SURE to go to the N. E. A., by some road that will take you through Cincinnati.

READ on another page the advertisement giving information in regard to the excursion to Niagara Falls via the L., E. & W., Ry.

THE Big Four and the Chesapeake and Ohio make the most desirable route to the N. E. A. See the advertisement on another page.

HAIR on ladies' faces, moles and other blemishes removed forever. **VARIN**, 25½ W. Washington St. Write or call when in the city. 1-3t.

TEACHERS going to the N. E. A., to be held in Washington in July, should read the advertisement on another page. They should not fail to go by Cincinnati—the "Queen City of the West."

THE C. H. & D., between Indianapolis and Cincinnati is notable for the fact that almost every mile of the distance is rich well improved farming country. From Hamilton to Cincinnati is a "garden spot." This is one of the most desirable routes to the N. E. A.

SCHOOL BOARDS contemplating changes can learn the address of the best Western and Eastern teachers, willing to change places, by addressing Orville Brewer, manager of the Teachers' Co-operative Association, 101 Auditorium Bldg., Chicago. We can assure all who write of confidence and honorable treatment. 2-1f.

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INDIANA " SCHOOL * JOURNAL

VOL. XLIII.

AUGUST, 1898.

NUMBER 8.

THE REASON WHY IN ARITHMETIC.

ROBERT J. ALEY.

It has become almost an adage in the pedagogy of arithmetic *that no step is to be taken until its philosophy is understood*. This sounds well and most teachers accept it without question. It is very probable that many of the failures in arithmetic are due to an attempt to carry out this doctrine. It does not follow, however, that success is the result of ignoring reasons. The arithmetic of our grandfathers, free from all philosophy, should not be resurrected.

There is a period in early childhood peculiarly fitted for learning to do things, and for indelibly impressing upon the memory useful knowledge necessary for future development. In this period the child learns to walk by imitation, continual trials and sympathetic help. Should he wait to do this until by means of learned disquisitions upon equilibrium and the centre of gravity he fully understood the philosophy of walking, he would crawl all his life. Talking is learned in the same way, and not through the science of philology or the philosophy of speech. In the first seven or eight years of a child's life an almost countless number of useful and desirable things are effectively learned without any thought of the philosophy underlying them.

In learning addition, should the child be burdened with an elaborate philosophy of carrying, or should he be taught *how* to carry? He can learn how to carry so well, that he will *always* carry the proper amount, long before he is mature enough to

understand the reason for carrying in such a way as to guide him accurately. It is not uncommon to see pupils in our second and third grades who can give a fine verbal or written statement of the reason for carrying, but who, three times out of five, fail to carry the correct amount. The pupil who carries correctly every time is worth more everywhere, even if he does not know the reason why he carries, than the one who seems to know the reason why and yet frequently, or even occasionally fails to carry the correct amount. The first may at the proper time easily learn the philosophy, but the second will have great trouble in forming the habit of correct carrying. When an immature mind is burdened with a reason and a process at the same time the chances are that neither will be gotten. A little boy of the writer's acquaintance learned to add in a school where he was taught the *how*, with but little emphasis upon the *why*. He soon became expert in addition, never failing to carry. His second year of school was under a teacher who believed in the *why*. In his attempt to be conscious of a formal scheme of reasoning he soon lost the power of doing accurately what he had been able to do before. He was not mature enough to master the *why* and the *how*. At the end of this second year his addition could not be trusted. In his case the *why* was not learned, and much of the *how* was lost. This boy would certainly have been stronger had this year been spent in learning fundamental processes, rather than in trying to master a philosophy beyond his power. A few years later when the processes have become thoroughly fixed in the mind, the whole power of the mind can be centered upon the reason why, and it can be mastered in a short time.

Formal analysis has for its aim the systematic statement of reasons. No one questions its value. The student who leaves arithmetic without the discipline that comes from analysis, has failed to gain much of the power that arithmetic ought to give. Many times analysis, by being forced upon immature minds weakens rather than strengthens. It is not uncommon to see a child mistaking the form for the substance. Many children get the idea that the correct position of the *since*, *there* and *therefore*, is vastly more important than the correct result. Rather mature people sometimes make this mistake. Whenever the analysis becomes so formal that it supplants genuine thinking, it leads to this result. It is painful to see children of the third grade doing work like this :

John bought 24 cents worth of oranges at 3 cents a piece.
How many oranges did he buy?

$$3 \text{ cents} = 1 \text{ orange.}$$

$$1 \text{ cent} = \frac{1}{3} \text{ orange.}$$

$$24 \text{ cents} = 24 \times \frac{1}{3} \text{ orange} = \frac{24}{3} = 8 \text{ oranges.}$$

∴ He bought 8 oranges.

There may be a time when such a form is legitimate, but to the child it certainly is not very full of meaning. The machinery of analysis should be as simple as possible. Complicated forms attract attention to themselves and the logic is lost.

There are no hard and fast rules to fix the time when the *reason why* should be given. The reason for some things can be given early, other things the pupil must be content to know arbitrarily. The boy who knows the multiplication table so well that he can sing it, is better off than the boy who must get every product by a proof process of tooth-picks or shoe-pegs. The boy who can prove his addition problem by casting out the 9's has valuable power, although neither he nor his teacher can give the reason why. Some time he may learn the reason, but if he does not, nothing is lost. Casting out the 9's puts interest into a somewhat dull process, and increases his respect for accuracy. Reasons should be given as soon as the mind is able to appreciate them. Much of pure arithmetic must always be a matter of memory. The reasons are worthy the efforts of the maturest minds. If much of the time now used in attempting to teach children the philosophy of the fundamental operations, was devoted to learning *how* to add, subtract, multiply and divide, far better results would be obtained in the higher grades. Division of fractions is very difficult to the pupil who is compelled to put forth considerable effort to perform the multiplication involved. In the earlier years of arithmetic study put the emphasis upon the *how* in order that the *why* may finally be thoroughly and easily mastered.

Indiana University.

FATIGUE.

SANFORD BELL.

David Starr Jordan quotes Bismarck as saying something like this: "One-third of the students in the German Universities destroy themselves by dissipation, one-third wear themselves out

by overwork, and the rest govern Europe." The president of Leland Stanford University then adds his own comment to the effect that "without insisting on the numerical equality of these three classes, we recognize that something of this sort is true of the college students of America. One part go 'to the dogs,' one part to the grave, and the rest are the strength of the Republic." In the opinion of these two men, at least two out of three of our college students ruin themselves by fatigue, since overwork and dissipation alike do their harm through draining the nervous system of its energy. What is true of college students is largely true of people in general, but more particularly true of the pupils in our common schools. This article is prompted by the hope that the facts relative to fatigue can be made so plain to the public school teacher that many of the present evils resulting from over stimulation may be avoided. When such men as Herbert Spencer, Jean Guyau and John Dewey assert that over-stimulation is one of the gravest faults of our modern school system, they voice the conviction of all who are capable of appreciating the situation. When parents and teachers both see that their indiscretion is defeating the very end they are striving hardest to attain, their treatment of children will be changed.

The fact that muscular and mental activity necessitates the expenditure of energy is known to all. It is also generally known that the greater the activity performed the greater is the amount of energy spent. It is perhaps as generally known that the energy consumed in mental effort is furnished by the central nervous system. It is not, however, so generally understood that the energy used in muscular exertion is likewise chiefly furnished by the central nervous system. Yet it is, nevertheless, true that the chief strain in muscular effort does not fall upon the muscle cell, but upon the nerve cell that furnishes the muscle with its impulse to activity. It is easily seen that intense and protracted mental exertion will consume a vast amount of nervous energy; that likewise continued vigorous muscular activity will do the same thing. And since the amount of available energy in the nervous system at any moment is limited, either process if kept up long enough, will exhaust the supply. And, furthermore, since there is seldom any mental activity that does not involve muscular activity and *vice versa*, it follows that this supply is constantly being doubly drained during our hours of effort.

Exact knowledge of the way in which the central nervous system produces and expends its energy is of importance to every one, but especially to parents and teachers since it throws much light upon the problem of the healthy functioning of both mind and body. The nervous system derives its energy from the food taken into the body, after the digestive apparatus has converted it into blood. The power to select and work food-stuffs over into its own substances is peculiar to the living cell. These protoplasmic substances of the nerve cell may be said to be the static form of the energy stored away in the cell ready for use upon any emergency which the nervous system has to meet. When the emergency comes, these highly unstable substances are torn down and the static energy becomes dynamic as the operative force of the activity, either physical or mental, that is being performed. The amount of work that can be done at any one time depends upon the amount of energy the nervous system has in store at that time. It is evident that any individual can do more work when he is fresh and vigorous from healthy sleep, than when he is depleted by previous labor or weakened by sickness. While the processes of labor are constantly diminishing the amount of available energy in store, the processes of assimilation are constantly restoring it. The two processes may be going on at the same time. The power of endurance one has, not only depends upon the amount of usable energy one has to start with, but also upon the relative rapidity with which it is restored. It will be seen then, that anything which affects either the amount of nervous capital in store or the process of its accumulation, is of primary importance. One's effective force at any time other things being equal, is in terms of one's nervous capital on the one hand and one's resources for rapidly restoring what is being consumed, on the other.

Sufficient has been said to show that the natural sequence to activity performed is a decrease in the amount of energy on hand, unless that activity was so slight that the amount stored up during the activity, was equal to or greater than the amount consumed. When the activity is severe enough to tax the nerve cell to any considerable degree, the feeling of fatigue naturally follows. If the process is still persisted in, it will result in exhaustion. Fatigue then is the normal feeling that follows continued exertion. It is not all exertion, however, that results

in fatigue. Moderate exercise of the cells, accelerates their process of storing fresh materials and consequently increases their power. The effect of the moderate exercise of the cells upon the circulatory system, is such that the flow of blood is quickened and the consequent better irrigation of the cells obtained, with increased storage. Hence the salutary efforts of exercise rightly taken. It is a matter of considerable importance to be able to determine the exact amount and kind of exercise that may be taken and be followed by this maximum increase of power; also, after this amount is reached, how much more can be taken with safety. It is evident that after this optimum is reached work may continue without hazard, but that if persisted in, a limit will sooner or later be reached, beyond which one can not go without very serious consequences. Intense exertion for a short time would be the equivalent of moderate effort for a more protacted period.

We have called attention to the fact that the same individual would vary considerably in his ability to do work at different times. We wish now to emphasize the fact that there are very great differences among individuals. Thus it is a common observation that some can perform enormous labor with little fatigue, while others are exhausted by very slight tasks. It is safe to say that no two can stand exactly the same amount of exertion. This is due to more factors than we can here discuss, but the most obvious reasons are sufficient guides to the stimulus we would apply in dealing with different individuals. One cause of this individual variation is manifestly the difference in the storage capacity of different nervous systems. Complete rest will bring to some people a much larger nervous capital than to others. This is certainly due to fundamental differences in constitution. Another cause of variation is the difference in the rapidity with which this capital is expended. Some nervous organizations are so constituted that a slight stimulus produces a great reaction, while with others considerable stimulus produces little reaction. It is plain that the first type would become fatigued quicker than the second under similar conditions. Between these two extremes are the many types that vary from the one toward the other. A third factor in the variation is the rapidity with which the cells restore their spent energy. Some cells like some people can turn off work rapidly and well, while others work slowly. It is possi-

ble for some people to rest more rapidly than others. People of such happy organizations can stand more work than their less fortunate brothers. Parents and school teachers should be able to detect these variations and regulate the tasks accordingly. Measured in terms of these facts it is evident that a given task is not the same to any two individuals and what is reasonable for one is dangerously taxing for another or very slight for a third. It is a pernicious habit that school teachers have of assigning tasks and insisting upon their being done alike by all, irrespective of differences in nervous resources. It is even sometimes done in the name of justice, or what is worse, to avoid being called partial. The inconsistency in either case is apparent. There is another fact which should have much weight with all who regulate children's tasks. Two individuals may spend equal amounts of energy and yet accomplish very different results. The amount of energy spent does not always correspond to its effectiveness in accomplishing on end. Some horses trot up and down; others trot forward; both kinds may consume equal amounts of energy. It will not do to judge how tired a child is by how much he has succeeded in accomplishing.

Valparaiso, Ind.

(TO BE CONTINUED.)

PRINCIPLES COMMON TO ALL PHASES OF HISTORY TEACHING.

W. H. MACE.

Resemblances constitute the basis for the organization of the matter of a subject into the form of a science. Differences are, perhaps, as important, but they do not form the intellectual framework of a subject. Logical cohesion rests upon common ideas that are fundamental. What ideas are present as guiding principles in all phases of history work? This is an important and, to some extent, a timely question. It is at all times important for the reason given above and timely on account of the fact that teachers are now beginning to differentiate between the various phases of history teaching. We now hear of history work peculiar to the primary grades and likewise work suited to the grammar school and to the high school. For many reasons it is necessary to discriminate carefully between the teaching best

adapted to these schools. But in the transition—which is a sort of protest—from the condition in which the history work of all grades was very much the same, we are in danger of doing nothing but discriminate, and of forgetting that every new differentiation is to be viewed as an opportunity for discovering a deeper unity. Looking forward from the primary school and backward from the high school, the teacher in each case can do good work in proportion as the common elements and factors are kept in mind. The recognition of the similarities in the problems of all the grades gives the teacher a sympathetic interest in the work all along the line.

Teaching is a process and its product is character. But character is also a process—a progressive realization of the self. It belongs to all phases of teaching from the first school to the last. Of course, no one-sided view of character is here meant, but character in a broad sense, in the sense which includes the whole man. Character is a unit. When it grows, it grows as a whole, when it acts, it acts as a whole. Therefore, to select any one phase of mental life and hold it up as the prime purpose in education and as the determining factor in the teaching process is not only of doubtful utility but is more or less erroneous.

Such an attitude is particularly narrow and harmful in dealing with history, which appeals so effectively to every side of character. What subject challenges our thinking capacity with deeper and more complex relations, or touches our emotions more profoundly, or stimulates our resolution more strongly? At every step in the teaching of this subject, in the schools of every grade, the one common and constant aim should be to produce the greatest possible round of mental experience, intellectual, emotional and volitional, and thus contribute to a well balanced character. As to this point, ideal teaching in the primary school and in the university are not fundamentally different. Nowhere along the line between these two schools is any fundamental phase of mental activity absent. In some form or other the judgment is always inferring thought and feeling from acts—interpreting content by means of form. Nowhere does the learner cease to admire or condemn, or to resolve.

In some quarters the impression prevails that the emotional and ethical sides of character should be stimulated in early school life more than in the later periods, since the pupil is more impres-

sionable than the student. But it should not be overlooked that this impressionable state extends to the pupil's capacity to think as well as to other phases of mental life. The emotions are no more open to influence in childhood than are perception, memory, and imagination. How could it be otherwise since the feelings are dependent upon the capacity to know? This same view demands that history in the higher stages shall cultivate principally the power to know, while the character being largely formed shall have much less attention. A careful look into history will show that the development of the emotions keep pace with the expanding powers of the intellect. Wherever deep and intricate relations are discovered in institutional life correspondingly deep effects are produced on the student's feelings. The discovery of the operation of law is among the most profound ideas attained in history and yet the effect upon the student's emotional and ethical nature is just as profound as upon his intellect.

The nature of the subject matter is the other factor common to all phases of history teaching and one which exerts a determining influence in the process. If we interrogate this factor we do not find it necessary to change the conclusions stated above. There is no essential characteristic of the subject matter of history which demands a limited view of character as either the immediate or remote end of history teaching.

There is always present material to test the child's or the adult's capacity to think. Emotions and resolutions may always be aroused adapted to the learner's phase of life. There is nothing in the subject matter appropriate for childhood or manhood which calls for modification to suit some notion of the prominence or decadence of capacities. The ride of Paul Revere furnishes appropriate material for the learner at every stage of thinking, feeling and willing. It will be generally conceded that this ride furnishes material for the elementary phase—either for the oral or written story and that the grammar school pupil may widen the circle of his relations and deepen his admiration by discovering Paul Revere as the "Courier of the Revolution"—carrying most important information between Boston, New York and Philadelphia, at the time of the Boston Tea Party and again between Boston and the Congress of 1774, thus revealing him as a courageous and trusted messenger. Again the advanced student may see in this event an illustration of how one phase of the preliminary

organization of the forces of the Revolution was accomplished and how Revere was a product of committees of correspondence and the minutemen. What is true of this fact is essentially true of every important event of history.

Syracuse University, N. Y.

DEPARTMENT OF PEDAGOGY.

TESTING—ENDS AND METHODS.

E. E. WHITE.

I invite you to study with me the third teaching process, the test, that is, the test exercise. Let me ask you what is the end of the test? Clearly it is to disclose to the teacher the results of instruction and drill. The teacher ought to know whether the results aimed at in class exercises are actually obtained, and there has been devised but one way by which the teacher can come into that knowledge, and that is by testing the pupil's knowledge, power and skill. It is true some testing goes along every day in connection with every teaching exercise, but I think that we may be quite misled and think that our pupils know more than they do, especially be deceived as to their actual skill. So it becomes necessary to stop and test what we have done and see that our pupils know and can do what we have aimed to secure. When the class has completed a certain division of history, or of arithmetic, or of geography, or whatever the subject may be, it becomes necessary to know by definite searching what the results of instruction and study are. What I plead for in the American school is that the searching test shall go hand in hand with instruction and drill, disclosing clearly the results actually attained. The first end of the test is to disclose the results of instruction and drill. The old-time teachers were testers and drillers. They did not instruct much. I was not taught much in school, and I certainly was not taught much in college, but what did I do? I studied books and then came before the teacher or professor to be tested. The great fort of the old-time teacher was testing. Sometimes he might condescend to explain something. His teaching was ordinarily a testing of the memory. I remember when I was a little lad that I committed to memory

the first geography I ever saw, coarse and fine print from beginning to end, and I got many a pat on the head from the teacher because I could do it. This was also true in grammar. I memorized Kirkham's Grammar, exceptions and all, and then came before the teacher and recited it. The old idea was that the pupils were to recite the book from memory, but some of the old-time school masters were great testers of the understanding. Many of them were great teachers and they were not satisfied with the memorizing of books. They held their pupils to a mastery of the thought of the author.

I fear that we have gone right to the other extreme. There is in our American schools to-day a great deal of talking, of explaining, of doing the thinking for the child, and comparatively a small amount of real testing, of searching, of reciting. Pupils now come before the teacher to be instructed, and the teacher assumes the office of an instructor rather than a tester.

I have asked the teachers in a good many high schools this question: "Which pupils can master a text book most successfully, the pupils entering the high school now or those that entered twenty years ago?" What do you think their answer is? They tell me that pupils entering their schools now can not study, cannot master books as they could twenty years ago. When I ask the question, Why? they tell me, there is too much talking, too much explaining, and too little study in the grammar schools. The pupils really have to climb a perpendicular wall to get into the high school, and this explains the fact that forty per cent. of the pupils fail the first year. What a slaughter that is! What a loss of opportunity! It is doubtless true that in the grammar grades there is too much teaching and not enough study. The pupils come largely to depend upon the teacher, and the consequence is that the pupils come into the high school with little power of book study. But the fault is not all in the grammar grades. The studies in the first year high school are too abstract, the first year being often devoted to Latin, history and algebra. Why can we not balance things? Why is it that teaching must be a pendulum? Why is it that we cannot take a mean, so that the good things in teaching shall be in harmony? In a true method of teaching all the elements of strength and power are united and harmonized.

Now let me give these young teachers a little personal exper-

ience: When I entered a grammar school in Cleveland, a very young man, right out of the senior class in college, I did not know how to test a class of forty pupils. I had to learn the art. In my first year in that grammar school, I subscribed for an educational paper, the *Ohio Journal of Education*, years after changed to the *Ohio Educational Monthly*.

Now, in that first volume I read two articles that changed my teaching. They gave me peeps into a Boston school, through the eyes of the writer, and I received a new idea of what is possible in the testing of a class. That became to me an ideal and I studied the art of testing a class and came into some skill. I was afterwards appointed superintendent of schools at Portsmouth, Ohio, and I went to Cincinnati to visit the schools to learn their methods of teaching in the primary grades, but my interest took me to the high school. I visited the historic Hughes' High School, and I had not taken my seat three minutes before I was conscious that I was in the presence of a great teacher. I have never seen a more skilful tester before a class. What intense earnestness pervaded the classes. As I left that room I realized that I had never seen such work in a school as that, and I said to myself, Who is this man? It was Cyrus Knowlton, and then I recalled the fact that the articles I had read in the *Journal of Education* were signed "C. K." I had been in the presence of the man through whose eyes I saw that school in Boston. I had seen through Knowlton's eyes John D. Philbrick testing a class.

The truth is we are teaching the pupils to depend too much upon the teacher, to explain all difficulties. The teacher instructs and drills and testing is given over to the superintendent. The teacher must be a tester, and the work of the teacher must be vitalized by the searching test.

School exercises can be divided into two classes: *First*, Lessons including instruction and drill; *Second*, Recitations or test exercises, that is lessons which include instructions and drill, and the recitation in which the results of lessons and study are tested.

I would like to see more made of oral tests. The teacher should know what his pupils know, and when he assigns them a lesson he should test the results of their study. The instant you break down your testing your study goes. If the teacher is super-

ficial in his testing, the pupil's study will be superficial, if the teacher tests the memory in his recitations the pupils will memorize and repeat. The character of the pupil's study will be determined largely by the teacher's tests. Now, if this is true, it is worth while to study testing.

This brings us to the study of the method. How can knowledge be tested? In two ways. *First*, knowledge can be tested by its expression. When a child tells you what he knows of Greenland, the expression is a test of his knowledge. Pupils are thus tested by questions which lead them to tell you what they know. This is the only way nine-tenths of teachers forty years ago thought of teaching. Is it fully satisfactory? Is there not also another mode of testing knowledge? The second test of knowledge is use or application. How do you know whether the pupil knows the meaning of the word transparent? Will this be shown by a definition? Will it not be better shown by the pupil's pointing out transparent substances and showing why they are transparent? Whenever we can, we ought to have the pupil apply his knowledge.

How can power and skill be tested? Not by answers to questions; not by writing on paper or telling something in words. How can I test the pupil's power to sing music at sight? Only by requiring him to sing music at sight. The test is in the doing. The written examination does not test the result of half the work done in the school room. It is wholly an inadequate test of the skill. Skill is tested only by doing. You cannot test a pupil's power or skill in drawing except by drawing. You cannot test a pupil's power or skill in reading by asking him questions. The only way to test his power or skill is to require him to do the thing. The skill of pupils in writing or drawing is not shown by specimens of writing or drawing. I do not know the skill of one school as compared with another by specimens. I cannot tell whether Cleveland excels Chicago in drawing from the specimens exhibited at an exposition, nor can you tell. The important element of time is absent. You can only test skill by actual doing at the time. It is best tested by the teacher. The writing of a page in five minutes is higher skill than the writing of it equally well in twenty minutes. The written examination is largely a test of knowledge, not of power, not of skill. It is a test of a peculiar kind of knowledge, what Quick calls "examination knowledge."

I believe in the written examination in its place, but it ought not to take the place of the oral test—the eye-to-eye and mind-to-mind search. We must have in our schools the recitation, the test exercise going hand in hand with instruction and drill, and our pupils must be lead increasingly to the study of books. The practical problem before American teachers is the union of oral instruction and book study. We must train pupils to study books, and to this end, the result of study must be daily tested. Testing is an essential and vitalizing process in the schools. It ought to be both oral and written. We are requiring too much written work, and many a child is made extremely nervous by it. No young child ought to be required to write for half an hour. Twenty minutes are quite enough. We are making a hobby of written work. You ought not to require so much copying from the board. The book should be used more for exercises.

I am a radical on this question and I express myself very candidly. I have seen so much teaching of late years that was the mere preparing of children to pass examinations that I saw the necessity of a change.

“PSYCHOLOGIC FOUNDATIONS,”* BY W. T. HARRIS.

[The most important idea in practical pedagogy running through the whole book is that of arrested development of the child's powers. The pointing out of the places along the way of his training where there is danger of the arrest of growth in the attempt to secure expert skill is one of the valuable things in the volume.—*Geo. P. Brown.*]

Evidently the title of this book was not given it for euphonic reasons, but to describe the character of the book ; which it does precisely. It is a philosophic discussion of the underlying principles of education ; and it comes to the relief of every teacher who is striving for ultimate guidance in his labors.

Specifically, the book is an effort to show the development of the higher faculties out of the lower ; and in doing this it presents the inmost thought of the educative process. A deeper view of the mind is sought than that usually found in psychologies ; for these generally do no more than make an inventory of and describe the so-called “faculties of the mind.” They do not give “the genesis of the higher faculties out of the lower ones.” The “in-

*International Educational Series. Published by D. Appleton & Co., New York.

ventory-psychology," as the author calls it, follows the mechanical method of classification and generalization, as is frequently done in other sciences. It analyzes and abstracts common attributes, thus forming a mental product which has no objective and concrete reality. All true classification unites the objects classified in and through their single creative energy. The old idea of a class, or concept, required only subjective unity; whereas the purpose of thought is always objective unity. The true concept, or class, holds individuals into the unity of their creative process. The mere subjective bundling of common attributes—the connecting crosswise from one object to another—yields a product which has no objective correlate; and hence is a useless procedure.

The contribution of the book is the insight into the development of the mind, through phases, called faculties, under the principle of self-activity in the human soul. The evolution of the higher faculties out of the lower, and how the higher absorb into themselves the lower—such is the deep truth wrought out in the book. The lowest act of the mind in sense-perception has in it what is explicit and conscious in the highest act of thought; and the highest act of thought has gathered up into itself as a condition of its existence all the lower elements. There has been much useless war waged against "the faculty psychology," on the ground that the soul is a unit, and does not exist as separate faculties. This prejudice against "the faculty psychology" no doubt arises from the superficial idea of classification described above. But the solution of the matter does not consist in refusing the idea of faculties, but in giving them the proper interpretation—as phases of a complex mental development. The obvious objection to the "faculties" is that they are opposed to the unity of the mind; but, by viewing them as phases of its development, they may be sent to aid in its higher unity.

While the book is rich and varied in fundamental truths, its sustaining power resides in the inner, vital, genetic movement in psychologic study, and the central doctrine of education this implies. No analysis of the book need here be attempted; it is sufficient to point out its creative idea, which I hope will prompt to its intelligent study. The author's name is a guarantee of the book's immediate acceptance by the profession; and a careful study of the book will justify any expectation on account of the great work of the author which has preceded it.

ARNOLD TOMPKINS.

THE SCHOOL-ROOM.

THE LIGHT OF THE STARS.

H. W. LONGFELLOW.

The editor of the JOURNAL has been asked to publish a suggestive article as to the teaching of this and like selections in the Fourth and Fifth Readers of the Indiana Educational series.

Before beginning to teach this or any other selection, it is well to call to mind some principles that will guide us in the interpretation of any piece of literature from the simplest fable to the most intricate of Shakespeare's plays.

I. The first thing the mind must do is to picture, or image, the particular individual scenes, events, persons, objects, etc., presented by means of the language of the selection. To do this the various language forms—words, phrases, sentences, figures of speech, etc., must arouse in the mind of the reader their appropriate ideas and thoughts. It is not necessary that the pupil be able to define and classify all or any of these language forms. If a man were described by saying that he is a fox, before the pupil can image this character he must know something about the nature of the fox. He does not need, however, to make an exhaustive study of the fox, historically and zoologically. He needs to know that he is sly and shrewd.

It should be remembered that this picturing or imaging is only the first stage of literary interpretation. Sometimes teachers seem to think that it is all and stop when it is completed.

II. The second stage of the reading of a literary selection is the conceiving of the theme or main thought as set forth by the individual images. To enable one to do this he must know the conditions under which the selection was written, must understand historical and other allusions. For example, take the selection named at the head of this article, and we shall find that it will help us a great deal to know that it was written shortly after the poet's wife died; and that he seemed inconsolable. His friends were unable to get his mind off his great loss. He was completely overwhelmed.

We can not get the full value of the poem unless we understand the allusions to Mars as the god of war and to Venus as

the goddess of love. We shall need to know what is meant by the allusion to the different watches of the night, etc.

III. There is still one other thing that helps us to appreciate the beauty of literature. It is to see the fitness of the language used to set forth the universal thought of the selection.

With these principles in mind, we are ready to step before the class to direct the pupils in their study of this short poem. Let us not tell them anything to start with. Let us keep in mind, also, that there are no sharp lines dividing the three things we have just mentioned. Do not be disturbed if a pupil should reach number three at almost a single bound. Let him go, but see that the others have a chance to get what there is in the poem. All should be bettered by its study.

THE SELECTION.

A pupil is asked to read aloud the first stanza. It is assumed that every member of the class reads it at the same time this pupil reads it. When this pupil has finished reading the teacher asks what picture it made him see.

"I see the new moon just above the horizon. It disappears behind the sky."

"What made you think of the *new moon*?"

"The phrase *the little moon* made me think of the new moon."

The class is asked to read the next stanza silently and note whether any change has occurred in their picture. Many are ready to answer. One says that the stars are the only lights seen by the poet at this time. Among them we see Mars.

Others say that in their picture they placed Longfellow looking at the stars, especially at the red planet Mars.

Another says that he can not "picture" time very well, but the stanza led him to think that the scene occurred between the hours of six and nine P. M. On being asked to explain he referred to the phrase "the first watch of the night." He says that this alludes to an ancient custom of dividing the night into four watches; the first from six to nine; the second from nine to twelve; the third, from twelve to three; the fourth, from three to six. This was done by the shepherds who had to watch their sheep at night to keep wolves, panthers, etc., from killing them. It was later adopted by soldiers who had to guard a city or their camp at night in order to announce the approach of the enemy.

This statement set several to thinking and one ventured the remark that the author must think of Mars either as a shepherd or as a soldier. The teacher here said "yes," and called on a member of the class to read aloud the stanza. When this pupil finished reading, it seemed that every member of the class had something to say. The teacher needed only to give some one permission to talk. This was done quickly while everybody was at "fever heat."

The pupil who had the floor said, "The poet thinks of this star as a soldier, because he says that a hero's armor gleamed from that blue tent above." This seemed to satisfy the class, but the teacher said, "what do you think made the poet regard the red planet Mars as a soldier?" There was a silent re-reading of the stanza and some wild guessing done. This guessing showed the teacher that the pupils were not in possession of the story of Mars, the god of war that might have been told when they were in the lower grades. So he proceeded to tell this story. He might have told the pupils where they could find it and waited until they read it for themselves.

When the story was finished many were ready to answer the question the teacher had asked before. One pupil said that as the poet knew that the ancient people had named this star Mars in honor of the god of war, and that they believed that brave went to this star after death, it was natural for him to think of this star as a soldier.

The teacher then told the story of the star of love alluded to in the same stanza.

What is there in the next stanza that shows he is still thinking of this star as a soldier? "The shield of that red star." Yes, a shield was used by the ancient soldiers to protect them from the enemy. It was held in front of the breast. Said a pupil, "I wonder if that is the reason we call a wall built to protect soldiers now-a-days, breast-works." This is just a little off the subject, but the teacher quietly said "perhaps," and asked what the author describes in this stanza that he has not mentioned in any preceding stanza. "His own thoughts" came from several pupils. "Yes, earnest thoughts" said the teacher. Read the next stanza. "He personifies the star," said one. "Does that mean he speaks to it as if it were a person?" asked another. "Yes," said the teacher. "Why does he say 'star of strength'?"

"Because he is thinking of it as a soldier, and this is why he says mailed hand." "Yes," said the teacher, "and it seems that the star has made him strong again." The teacher then in a few words told the class of Longfellow's great sorrow and that his friends were unable to help him. The star, however, seemed to give him strength to bear his great grief.

"Now, note what the remaining stanzas give us. 'Two of them give us the thoughts and feelings of the author,' said one pupil. 'Let us hear those two read aloud.' They were read and the pupils were anxious to talk without any questions from the teacher. They were allowed to do so. Among the things said were the following:

In the first two lines of the 6th stanza the author refers to his feelings of sorrow. He allows Mars the star of strength to rule him early in his grief.

He thinks of it as having a will that is unconquerable and that he will become like it. He says it is serene, resolute, still, calm, self-possessed and he concludes that he can be so.

In the last two stanzas he addresses the reader whoever he may be. He seems to think that because he has been able to become resolute and calm that every one can become so, no matter what his troubles may be. He says we may suffer and yet be strong. He says it is sublime to do so.

Now up to this point of the recitation the pupils have imagined what they could and in a way they are feeling what is sometimes called the theme or purpose of the author, although nothing has been said about either. The teacher however, now asked the class what seemed to them to be the main thought of the poem. The class did not seem to know what he meant, so he said, "Does it seem to be the description of the light of the stars or is it something else?" After a few minutes of silence several wish to answer. "It is not the description of the light of the stars, but rather of the effect *one* star had on Longfellow." This is good as far as it goes, and the teacher said something to that effect. Another said, "It seems to me that the author shows that he had the power to overcome his sorrow and be strong." Another, "I think he shows that every one can be strong and helpful in this world in spite of whatever sorrow he may have."

This article is now too long. We have said nothing about what was done under the third point named. The article is aimed to *suggest* only.

GEORGE F. BASS.

THE RECITATION.—I.

W. F. L. SANDERS.

The recitation is of such supreme importance to the pupil that it ought to be surrounded by every favorable condition and preceded by every possible preparation.

One condition absolutely essential to effective teaching is a class-room, where the recitation may be conducted free from the presence of other pupils. Here, the teacher may teach with the spirit, unfettered by the thought that he must not attract the attention of the pupils of another class, by his interest and animation. This most essential condition is denied to nearly all teachers in the public schools. The idea that it is the most essential condition for effective work is a very live one and it is not going to let thinking people alone until in the course of time a class-room separate from the study-room will form a part of every school building in the land.

We believe every teacher understands the necessity of having the temperature of the room, the arrangement of the seats and of the light, and the physical condition of the pupils, all in harmony with the purpose in view. Physical discomfort will detract much from the total results that are possible to be accomplished. It is not necessary for a pupil to sit in a strained position that his bodily attitude may be respectful. There should be no uncouth, ill-mannerly, or lounging position of any part of the body, and yet it is not necessary that all the pupils should have the same position—a condition some teachers try, with more perseverance than wisdom, to secure.

The nature of the recitation may demand the use of the book, or of writing materials, but if not, the pupil should be entirely free from anything that will dissipate energy or interest. A ruler, a pencil, a piece of paper, etc., may, in the hands of a pupil, lead him to disorder or inattention; hence, the necessity of preventing the occurrence of everything of this nature that will give the pupil an improper attitude, of mind or body, toward the recitation.

Another condition essential to a successful recitation is the thorough and proper preparation of the lesson by the pupil. Naturally, to a great degree, the pupil's preparation is an index

to the teacher's plan or manner of conducting the recitation. When pupils show by their disposition and by their work, a sincere earnestness and diligence in the preparation of the lesson, it may be safely inferred that *something* in the teacher's work is having its effect, is bearing good fruit.

The pupil's work may also be influenced by the nature of the assignment. This should be *clear* as to what is to be accomplished in the gaining of ideas; *definite* as to limits; *consistent* with the maturity of the pupils, with the method of preparation, and with the time that can be given to its preparation. The teacher should give an extremely careful consideration to the assignment of the lesson, and to the method of its preparation by the pupils. Even the pupils in the high school need definite instruction and direction as to the process of studying or working out a lesson, so as to economize time and acquire a habit of thinking continuously and effectively.

Let every teacher take such determined control of himself that he can begin and close the recitation *on time*. Neglect or carelessness in adhering strictly to these two time limits works serious evil in several ways. Pupils instinctively know that the teacher should exactly follow the periods of time allotted to each subject, and when they are disregarded, the pupils soon form an unfavorable opinion of the teacher as to his power of managing himself. To go a few minutes over time is a fault of many. One evil often begets another; and a talkative teacher who has consumed most of the time himself and who has not called upon very many pupils, feels, toward the close of the period, a desire to make amends by continuing the recitation over the allotted time. In this endeavor, the time limit is easily passed, the next period is intruded upon, and the recitation is likely to close hurriedly, carelessly, or in confusion. If the close of a recitation happens to be the time for the assignment of the next lesson, it is very likely to be omitted or else so imperfectly done, that it has to be done again at an inopportune time. It is proper to add here that the assignment of the lesson is of such vital importance that it is essential that it should be done at a regular time, preferably at the beginning of a recitation.

It is simply impossible to emphasize too strongly thorough preparation by the teacher. A complete knowledge of the lesson in all its bearings is the most important element contributing to

the perfect mastery of the situation. The purpose of the lesson may be the accomplishing of one object, or of more than one, depending upon the nature and extent of the lesson assigned, but whatever it is must be clear and definite. His plan for accomplishing the purpose of the lesson must be well arranged and at his perfect command. He must see the end from the beginning. He must have in mind the general topics or questions to be presented to the class. His plan, or outline, should be like the framework of a well-arranged structure, all the parts fitting into their proper places, and holding to each other their proper relations. In order, one by one, he must present the topics to the class and have them thoroughly discussed to the end that each shall contribute his light towards the accomplishment of the purpose of the lesson. If he wanders, or talks too much, direct, effective work ceases, the purpose of the lesson is forgotten and lost, little or nothing is accomplished, and the time and energy of all have been wasted. The class has been harmed beyond estimation, by the bad example set before them, and the teacher has lost irretrievably in that attribute that contributes so much to his general success, the power of holding his activities strictly to a plan of work.

While adhering carefully to the plan of the recitation, ideas other than those embodied in the lesson will arrive, simply through the different ways different persons have of viewing things. The teacher must judge quickly of their value, and utilize as many as possible of those that are pertinent. These supplementary ideas brought in through individual suggestion, at different stages of the recitation must be severally fitted into the proper places, indicated by their relations. The teacher may join each of them to the topic of nearest kinship, thereby letting it add to the completeness of the treatment of the subject under consideration; but under no circumstances must the teacher permit any one of them to move him from his course, or defeat the accomplishment of the lesson within the allotted time.

A careful preparation enables a teacher to anticipate some of the difficulties he will be asked to make clear. In doing this he has the opportunity of testing his own skill in so questioning the pupils that they themselves may furnish all the information necessary to the complete explanation of a difficulty. They are thus gratified at finding out they really know all the elements, or

ideas, constituting the knotty point under consideration, and, furthermore, they are enlightened as to the method of attacking a difficulty, a power, which, once gained by a pupil, makes him walk the earth with a firmer, prouder step, and makes him feel like establishing for himself a kind of "Declaration of Independence."

The teacher should be prepared to explain every allusion or implied meaning that is in the text, or every inference that may be drawn from it. In nearly every kind of text there is a chance for something to be asked in one of these lines. A teacher can not make a cyclopedia of himself; neither is he expected to be prepared to meet every query that may be asked. He may, without any risk of losing the confidence of the class as to his ability, now and then say that he doesn't know; but he must not be compelled to say it too often. He must take special care to be able to meet a perfectly fair question drawn from the text. To illustrate:

A lesson in chemistry is on the subject of carbon. In regard to its three forms, the text has the statement, "They are insoluble in all ordinary liquids." This fact and others closely related have been recited and the teacher passes on to another topic, when some pupil who is a good thinker raises his hand and asks the question, "What is meant by *ordinary liquids*, and in what liquid is carbon soluble?" From the wording of the text each of these queries is a natural consequence, and the teacher should be prepared to dispose of them satisfactorily. If he does so promptly he adds much to the pupils' confidence in his ability, and this confidence manifesting itself at all times of the day is a silent force of great power for good, effecting its beneficial results in all the details of school management.

We get back our mete as we measure,—
We can not do wrong and feel right,
We can not give pain and feel pleasure,
For justice avenges each slight.
The air for the wing of the sparrow,
The bush for the robin or wren,
But always the path that is narrow
And straight for the children of men.

—Selected.

LEND A HAND.

(This department is conducted by Mrs. E. E. Olcott.)

*"Look up and not down,
Look forward and not back,
Look out and not in;
Lend a hand."*

AUDUBON.—III.

Before completing the romantic story of Audubon's life, we will pause and consider his method of studying birds.

In this era when Bird Day is celebrated by many schools, when a Bird-Day Number is an annual feature of many educational journals, when a wave of interest in bird study flows over the land, it is well to note how this greatest of bird students learned the ways of bird life.

"His earliest recollections were of lying among the fragrant blossoms under the orange trees watching the movements of the mocking-bird and listening to its song. When a mere child he began drawing the birds he saw around him." As a school boy, we remember, he roamed fields and woods making collections of nests, eggs, etc., more than he went to school. As a young man of Millgrove, "his room became a museum of natural curiosities." Thus in the plastic period of childhood and early youth he formed habits of observation which are indispensable. If the *child* does not learn to observe nature, the *man*, despite his most earnest endeavor, remains half blind. An anecdote illustrates this: Some young men went rabbit hunting and returned empty handed to the disgust of an old hunter. "Come on," he said curtly and returning to the field where his companions had failed, he soon exclaimed: "There's a rabbit! Don't you see it? And there's one! And, by George, there's another! Nothing the matter with the rabbits, it's your city blindness! You don't know a rabbit unless it's hanging by its heels in the market. If you had hunted when you were knee high to a duck like I did, a rabbit wouldn't have to sit up and bow to you before you could recognize it."

It is later in Audubon's life that biographers give us the most helpful glimpses of his methods.

"Not far from Henderson, Ky., was a small lake. Its shores were thickly lined with cane, and on the edge grew many large

and lofty cypress trees. Here he used to sit for days at a time on the trunk of a fallen tree and, from a secluded spot, watch the actions of birds and animals that resorted to it. He was untiring in the study of nature. If a strange bird should present itself he would follow it for days until he had learned its habits thoroughly. He would paint a life-size, life-like picture of it. He used to have his entire large yard covered with pens filled with wild turkeys and all kinds of fowls which he caught in traps in the surrounding forests. An old settler who was personally acquainted with Audubon used to relate that the naturalist gave chase to a strange bird one day and the wily thing flew into a hole in a dead tree. So eager was he to capture the bird that he climbed up and ran his hand into the hole. No sooner done than a snake stuck its fangs into his finger. So frightened was he that he let go his hold and he and the reptile both hit the ground at the same time. He suffered no trouble from the escapade save a few bruises."

Nothing deterred him, neither accident, nor solitude, nor long distances, we are told: "Henderson, Owensboro and Vincennes, Ind., were considered neighboring towns in those days. It was nothing for the good hearted Audubon to appear in them, afoot with his dog and gun which were his two constant companions. In his long, lonesome expeditions through the unknown country, studying the habits of birds and animals, he would frequently never see the face of a man or woman for weeks at a time."

"A Louisville friend called his attention to the thousands of chimney swallows which were then to be seen everywhere and told him to find out the way these birds spend the night in a chimney or hollow tree. Audubon found a great sycamore tree near the Ohio falls and about sunset one evening watched the swallows as they shot into the opening at the top. The next morning long before the first signs of day had appeared in the east, he returned to the tree to watch the birds come out. Suddenly from within its trunk there sounded a roar like a wildly-sweeping wind, which increased so that he sprung back thinking the tree was going to pieces and would fall on him. Then the swallows poured from the top like the smoke from a mighty steamer. That day he had a block cut from the side of the tree up near the middle, and in the night when the swallows had returned to roost he took it out, and with a lantern saw them clinging by their claws to the sides of the trunk inside, caught

about a hundred and then made an estimate that there were 9,000 guests in this bird hotel. He says an ordinary chimney has often held 1,000."

It is also related of him that he has been known "to lie patiently on his back, the moss serving for his only pillow, every day for three weeks watching two little birds build their nests."

Let us note how persistently and in solitude he pursued his study and learn a lesson therefrom. It is only by methods patterned more or less after Audubon's that a personal living knowledge of birds may be gained.

Read the various late writers on bird life and it will be seen that their methods of observation are akin to his. Olive Thorne Miller tells how she left an unfinished manuscript, and in slippers and wrapper spent three hours in following the note of a single baby vireo, and felt rewarded by a good look at him, even though to gain it she had waded through mud and shallow water and crept with scratched hands and torn dress through thorny underbrush.

There are two kinds of bird study both having an important place to fill. In one by song and story, by pictures and stuffed specimens, by language lessons and bird-day exercises, the pupils collectively gain a wholesome, enthusiastic but *theoretical* knowledge; in the other by living where the birds live, by patiently, lovingly, day by day, watching their coming and going, their building and brooding, the children individually become *practically* acquainted with bird ways. The ideal lies in the union of the two. In the theoretical, the city teachers have decidedly the advantage because of their access to libraries, and the aid coming from supervision; but in the practical, those in country and village are far and away the more fortunate; indeed, teachers in a very large city have almost no chance at all.

A child may learn beautiful legends of the robin redbreast, and write a charming description of the bird, but if he has never seen one, why wouldn't he just as well have "studied" the bird of paradise so far as a practical knowledge goes?

American literature abounds in reference to the merry bobolink. In the New England States "Robert of Lincoln" flits about a familiar figure, but what can the Hoosier children practically know of the bobolink? About as much as we Hoosier teachers, or American teachers for that matter, can know of the famous English nightingale.

Would I decry "theoretical" study? By no means! There is little doubt that the movement to protect song birds and to discountenance the killing of birds for ornament, owes its strength to the work of city Audubon clubs, and the influence of bird study in city schools. I would only "lend a hand" in the good cause, by a word of friendly warning to earnest teachers, that they try to distinguish clearly between the book learning and the field work knowledge of birds. Some city teachers deceive themselves and believe that their pupils know the live birds because they can talk glibly of those in books; and some country teachers waste time on lessons about the bobolink, while the neglected red-bird peeps in at the window and the noisy jay from a neighboring tree screams disapproval of such methods.

Let the good work go on. The more bird-days and bird literature the better. But I have given so much space to the study of birds that the story of Audubon must wait until next month.

[TO BE CONTINUED.]

TALKS WITH INEXPERIENCED TEACHERS.

READING.

My Dear Young Friend:

This message is especially for you who are to teach your first school this year, and you who taught last year and are longing for a helping hand over some of the hard places you found then. It is especially, too, for those who must depend almost wholly upon themselves, having no city superintendent or experienced friend in the next grade to whom to turn for advice.

Reading is the foundation stone upon which all other studies rest more or less. So we will talk of reading first.

Suppose you have a class of four beginners who "don't know nothin'" and five who can read a little. Plan for these two classes to recite together at regular intervals and separately the rest of the time. In this way the A class encourages and assists the beginners, and the beginners awaken a spirit of kindly helpfulness in the others; while in the separate recitations each class has lessons specially fitted to its ability. Your purpose is to teach the children to gather thought from script and print with ease and pleasure, and to render it orally with expression.

As to method, I should advise you to use the *eclectic* by all

means, that is to unite the best points in all methods, making one supplement the other, and all serve the little students.

The latest primers present, and writers on primary work advise beginning at once with the sentence. It appeals more to the child's interest and helps to prevent the hesitation and drawing which come from seeing only one word at a time instead of taking in a phrase or short sentence at a glance. However, the sentence and word methods are so closely allied that if you lack confidence in yourself to begin with sentences for the very first lesson, then begin with a few words and combine them almost immediately into phrases and sentences. In the meantime, study the sentence method so you can use it next year. Mastering single words is not reading though it is a preparation for it, and is a very necessary drill which in its proper place should not be omitted. Do not use the readers at first because the pupils will certainly commit the lessons to memory, but for several weeks, at least, present the work on blackboard or chart. Begin reading script because it opens the way for desk-work which is closely connected with the recitations, and because it smooths the way for writing, spelling and written language work. Print may be introduced in a few days, while some teachers delay it for weeks or even months. Both The American Book Co.'s new primer and the Finch primer published by Ginn & Co. present the first lessons in vertical script. The following is the first lesson in the Finch primer :

leaf

This

maple

a

is

This is a leaf

This is a maple leaf

You might take it for your first lesson, leaving the words in the Indiana reader to be presented later.

Call the class to the blackboard. If your beginners are very timid let the A class come, too ; but if they are self-reliant then let the beginners come alone. Give each a leaf and question them to bring out the statement, "This is a leaf." Write it on the blackboard and have it read. Then question, "What kind of leaf is this?" receiving the answer, "This is a maple leaf," which is then written under the first statement. If it happens that the child says, "It is a maple leaf," instead of "This is," etc., it is just as well to use *it* as *this* in beginning the sentence.

Indeed, two other sentences, as, "I have a maple leaf," "It is green," would be equally good. The primer is merely suggestive, but it renders invaluable aid in showing clearly how to proceed.

Write each of the two sentences four or five times in various places on the board. Have them read and re-read, sometimes asking : "Where does it say, 'This is a maple leaf?' Where else? Find another. What does the writing say? Tell this little story." When they can do this reasonably well, close the recitation without any reference to the separate words.

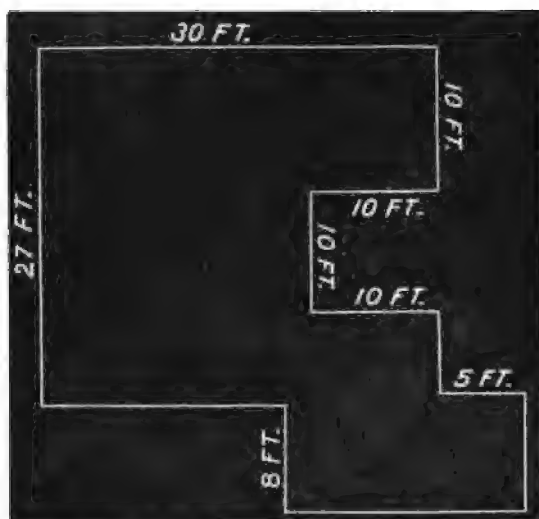
For desk-work direct the pupils to lay the leaves on their paper or slate and trace the outline, drawing the veins in afterward. Send some one from the A class or from the second or third grade for that matter, to draw the leaf on the blackboard so that the little beginners may learn of him how to do the work. Those who lack confidence to try to trace the leaf may be told to draw the *stems* which are merely straight lines. There is a vast difference to the little recruit between the command, "Fill your slate with straight lines," and "Make a slateful of pictures of your *leaf stem*."

If you your lips
Would keep from slips,
Five things observe with care :
Of whom you speak,
To whom you speak,
And how, and when, and where.

If you your ears
Would save from jeers,
These things keep meekly hid :
"Myself," and "I,"
And "mine," and "my,"
And "how I do," or "did."

DESK-WORK.

A PROBLEM IN MENSURATION.



E. Find the area in as many ways as you can.

Draw the above figure on the board or distribute hectograph copies of it to your pupils. Say to the class, "Here is a problem to sharpen your wits. The pupils of the Cook County Normal School solved it in more than thirty ways, and their solutions were exhibited at the World's Fair. See how many ways you can solve it. Be sure to make your work clear by drawing lines, making illustrative diagrams, or using colored pencils, and by verbal explanation."

Encourage the pupils day by day to seek new ways to solve it. Preserve their neatly written solutions to show to the county superintendent when he visits your school.

AN EXCHANGE that we are unable to locate has this suggestive incident: Some years ago a clergyman visiting a ragged school in London asked a class of bright, mischievous urchins, all of whom had been gathered from the streets, "How many bad boys does it take to make a good one?" A little fellow immediately replied: "One, sir, if you treat him well."

PRIMARY DEPARTMENT.

*This department is conducted by Miss Anna Brochhausen, Critic Teacher
in the Indianapolis Schools.*

I. READING.

In this stage of civilization it has become almost necessary for every one to be able to read and write. The progress in civilization is greatly due to the perservation of knowledge in written and printed forms. The power to read enables each person to deepen and broaden his individual experience. Therefore, reading is not an end in itself, but only a means for the acquirement of the preserved human learning.

Its educative value depends upon *what* is read and upon *how* it is read. Reading comes under the head of language studies, and in the first years of school the two can scarcely be separated. They are mutually dependent upon each other for the best results in either. Both are for the purpose of giving the child ideas. The reading matter may offer the pupil a new and better form for the expression of an already acquired idea. In this stage of his advancement, he should be learning history, geography, science, and literature, as well as gaining the power to interpret the conventional forms.

Since so much is to be gained from this source, reading has been given a very prominent place in the school curriculum; and, at present, learning to read is the leading study in the first three years of school. Since this is true, the primary teacher is called upon to answer several questions; viz : What is reading? What are some of the best ways of leading the child to the acquirement of this power?

Reading is thinking the thoughts of another through the medium of the written or printed page. *Reading is thinking.* Thinking is silent. Therefore, the power of silent interpretation is a necessary accomplishment. Oral reading is giving expression to the thought obtained. Both of these forms must have a place in the plan of aiding the pupil to profit by the experience of the world.

For the best development there are three degrees of difficulty in the tasks which any one is called upon to perform in the different relations of life. There are those which have become easy,

yet which are necessary to give a proper amount of self-confidence and encouragement ; those which call for a greater expenditure of mental or physical power, yet which are not *very* difficult ; and those which lie within one's power, but demand a great effort in their accomplishment. As early as possible in the first year, the reading matter should be divided into these three grades. At least each week, or within every two days, reading of each kind should be given to the children. The three methods of conducting reading lessons are based upon this thought ; *i. e.*, *first*, sight reading ; *second*, a lesson studied by the class (silent reading) ; *third*, a lesson studied with the class. If only very difficult reading were given to children, so much effort would be expended in the getting of words that the thought would be sacrificed, and thus the true object of reading be lost. If only reading of a medium degree of difficulty were given, the child would not exert himself to his best effort ; and if only easy work were given, the outcome is self-evident. Therefore, a wise adjustment of the three kinds of reading is a problem which confronts every teacher. When three days in the week are given to the second and third grades of reading, then the other two days should be given to comparatively easy work. It is better to keep the second and third a little in predominance.

For sight reading a simple, but interesting lesson should be chosen ; one in which the thought can be quickly comprehended by the child and given to the class. The expression then, will be so good that the listeners will understand. If not, the class should feel at liberty to say that they did not get the thought. As little help as possible should be given by the teacher. Sight reading, after all, is a kind of test of the acquired power of the child. If the expression is poor, however, the teacher must question to see if the reader has the thought. Then too, a class ought not to be dismissed with a wrong standard of what good reading is. Sometimes question upon what has been read after the story is finished. Much of this kind of reading should be done. A child learns to read by reading. In this simple reading, he gains the power to look ahead and thus become a smooth reader.

In choosing a difficult lesson to study with the class, the difficulty may consist in the number of new words, or in the new form (poetry for instance) given to an old idea. Such a lesson demands a great effort on the part of each one in the class, as well

as good preparation on the part of the teacher. Reports of different ways of conducting such lessons will be given in the course of this series of articles.

Very early a child should be asked to study some *story* alone. This story must always be a new one. Moderately difficult material may be chosen for this kind of reading. Questions are on the board to aid the child in his study. The object of the questions is to help him in reproducing the story so that the facts will be given in their proper order. The sequence in time is necessary to truth telling. A question or two may also be added to lead him to gain the thought behind the external form of the story. These questions may or may not be answered in writing. In every case, however, in the following reading lesson before the story is read aloud, the class is held for the reproduction of the story studied. If the questions have been answered in writing, part of the next lesson may be taken for the reading of several of these reproductions. It is an aid to the pupil to have several of the difficult words divided into syllables placed on the board above the questions. Sometimes it is well to allow the children to copy the words which they found difficult for themselves. In the next lesson then, before proceeding to the reproduction, the pupils stand in turn, spell the words which they did not understand or could not pronounce, while the teacher writes them upon the board. She helps the pupil to get the word, explains the meaning, and sometimes it is very good to have the pupil form a sentence using the word. Also in a following study time these words may be defined by using them in sentences. These suggestions will be made plainer by the reports which are to follow.

Before a class is asked to study alone, a lesson similar to the one reported below is quite necessary.

REPORT OF A LESSON.

One day last spring I entered an advanced first year school room, in which the children were speaking of the changes which had taken place in nature. Following the general talk, one class was called to the front of the room and the following story was given to each pupil :

THE AWAKENING OF THE FLOWERS.

Mother Spring awoke one bright morning and looked about.

"Well, well, how warm it is. I think it must be time to waken my children. They have been asleep in their little beds under the ground all winter." Then she blew a long soft note on her pipe.

How the little flowers jumped at the sound.

"Come, come, my darlings, it is time to get up," said Mother Spring. "The robins and bluebirds are all back. They are waiting to see you."

What a bustle there was under the ground.

Bright little Buttercup was soon out of bed and gently pushed her way up through the ground. She was the first to catch the sunbeams.

Buttercup was soon followed by Daisy, Spring Beauty and Violet.

How pretty they looked in their new spring dresses.

"Good morning," said the birdies, "we are glad to see you, sweet, brave, little flowers."

"Thank you," said the flowers and how happy they were.

T.—About what is our story?

P.—"The Awakening of the Flowers."

T.—But these flowers are not the kind which we plant. About which kind of flowers are we to hear?

P.—We will read about the wild flowers.

T.—Look through the first sentence. About whom does the story tell us?

P.—The story tells us about Mother Spring.

T.—Spell the word which tells us what kind of a morning it was when she awoke.

P.—B-r-i-g-h-t, bright.

T.—Now, some one is talking. About what is she talking?

P.—She is talking about the weather,

T.—Spell the word that makes you think of the weather.

P.—W-a-r-m, warm.

T.—She wants to do something. What does she say?

P.—"I think it must be time to 'awake' my children."

The teacher paused. Hands raised. The teacher called on a pupil who spelled w-a-k-e-n. The child who had read said "waken" and then read the sentence correctly.

T.—What does the next sentence tell us?

P.—It tells us why she wakened them.

T.—Spell the word that tells where they had been.

P.—U-n-d-e-r, under, g-r-o-u-n-d, ground.

T.—What happened? (Class reads silently.)

T.—Spell the word or words that tell what kind of a sound she made.

P.—L-o-n-g, long, s-o-f-t, soft.

T.—Read the paragraph and bring out the thought we have mentioned.

A pupil read, emphasizing "Mother Spring," "bright;" dwelt on the words, "Well, well," "warm," emphasized "waken," dwelt on the word "all." In the last sentence, the child dwelt on the words, "long, soft," but called "blew," threw.

T.—Does the last sentence give you any meaning?

P.—No ma'am. (He looked through it again and then read correctly.)

T.—That is better. Who would change anything in the reading?

P.—I would read the second sentence, "W-e-l-l, w-e-l-l, how w-a-r-m it is!"

T.—It could be read so.

T.—What happened *right away*?

The pupil in reading gave the word "jumped" a short, quick emphasis.

T.—Study the next paragraph and look up when you are ready to read.

(Class studied).

T.—What did she say?

A pupil read giving the second "come" a more acute emphasis than the first, dwelling on the word "all" and emphasizing "wanting" in the last sentence.

T.—Look! what happened?

P.—What a *bustle* there was under the ground! (The pupil read very quickly.)

T.—Somebody woke up.

P.—Buttercup.

T.—What did she do and h-o-w (spelled) did she do it?

Here there was a pause because one of the children could not get the word "through."

T.—Don't give *gh* a sound. Call *o*, *oo*.

P.—Through.

A child was then called upon to read the sentence. In reading she left out the word "up." One of the boys said: "I do not know *how* she came out of the ground." After a little pause the child re-read correcting herself.

T.—Because she did that——?

P.—She was the first *one* to catch the sunbeams.

(Some hands came up.)

T.—Norma says you made a mistake.

Norma—You put in a word.

The child who had read looked through the sentence and then read correctly.

T.—Who came next? (A pupil read.)

T.—Some one is talking. What did she say?

P.—How *pretty* they looked in their new spring dresses.

T.—Who spoke to them first?

P.—"*Good morning*," sang the birdies; "we are glad to see you *sweet, brave* little flowers."

T.—What did the flowers reply?

The last sentence is read but not with good expression.

T.—If you had been the flowers we would not have known that you were happy.

The pupil tried again with better success.

T.—Elizabeth will read it all for us.

Elizabeth stepped before the class and read the whole with excellent expression. The children during this time placed their papers behind them and listened attentively to the re-reading. Thus the story was left a unit in the minds of the children.

Such a lesson would be an illustration of a lesson studied with a class, with the double purpose of preparing them for the silent independent study from questions on the board. The questions in the first lesson studied by the class would be similar to the leading questions in such a lesson as the above.

[The editor of this department wishes to be of the greatest possible service to the teachers of Indiana. To this end she will be glad to have any one write her and ask questions, or ask for articles along any desired line of primary work. Address in care of the SCHOOL JOURNAL.]

THE State Normal School has six hundred and fifty students in its summer session.

EDITORIAL.

Honor the honest man. Earth rears but few.
Only at God's white forge are such souls wrought.
Rare honest man! His mind perchance sees truth
In different forms from thine, yet honor him.
Perchance his vision thy dim sight transcends,
And what to thee appears sublime and sure
As the eternal hills, to him is but
A bubble in the air. Perchance when thou
Hast found the crystal spring whereof he drinks,
Thou, too, wilt quaff, and own the light divine.

THE NATIONAL EDUCATIONAL ASSOCIATION.

The National Educational Association recently held in Washington was large, about 12,000 names being enrolled. There has only been one larger enrollment than this in the history of the Association. And yet, and yet—the actual attendance was the smallest for many years. The sights to be seen were too numerous and too attractive. The child-study department was about the only one that secured even a respectable attendance. However, this does not mean that the meeting was a failure. It will repay any teacher to visit the national capital and see the sights in and around it. Not the Association, but the associations are the chief attraction at all these gatherings, and this is especially true when the place of meeting is filled and surrounded with objects of universal interest.

E. Orman Lyte, of the State Normal School, Millersville, Pa., was elected president of the Association for the coming year.

A. R. Taylor, of the State Normal School, Emporia, Kan., was elected president of the National Council. It will thus be seen that normal school men carried off the two highest honors in the gift of the N. E. A.

Of course, Irwin Shepard was re-elected secretary and I. C. McNeil was re-elected treasurer.

The work of the secretary of the N. E. A. has grown so heavy that it requires the entire time of a person to do it as it should be done, so it has been made a salaried office for the future. Mr. Shepard has filled the place with great ability and will doubtless be continued in it.

The enrollment from Indiana was good (for Indiana), reaching about four hundred. State Manager W. R. Snyder spent most of his time at State headquarters and did everything he could to enable the Indiana people to have a good time. Mr. Snyder was ably assisted by his good wife. They both deserve the hearty thanks of the Hoosier delegation.

David K. Goss, superintendent of the Indianapolis schools, was elected director for Indiana, and President Joseph Swain, of Indiana University, was elected vice-president.

The Association voted to hold its next meeting at Los Angeles, Cal.

THE TEACHERS' READING CIRCLE BOOKS.

The Teachers' Reading Circle Books are now at hand and ready for distribution. (They are to be had through the county superintendents.)

Social Elements, by Dr. Henderson deals with a subject entirely new to a majority of teachers as a *branch of study*, and new to all of them as a branch to be taught in the elementary and intermediate schools, and yet the subject itself is not new in its material. We are living in the midst of the conditions out of which grow social economics and only need to have our attention called to them in order that we recognize them.

The book selected has been written with reference to use in the common schools. The school is made the centre, and the subject is organized around it. Teachers can have children *observe* the facts and conditions of the life of the neighborhood and their relation to the larger world may be discussed. This will certainly be a profitable study for teachers and and it will result in most good if they have their pupils join them in the study. Our Reading Circle Board has acted wisely in asking the teachers of the state to take up this subject as a *study*.

The other book, "*Plato's Republic*," is not new; it formed the chief part "Plato, the Teacher," used by the Circle last year. "*Plato's Republic*" is printed in full and it is edited by Dr. W. L. Bryan, of Indiana University. Dr. Bryan has written more than fifty pages in the way of introduction, notes, suggestions, and explanations. These will be of much service to the average teacher in his effort to understand this master-piece of the great Greek philosopher. Dr. Bryan has done his work well,—no other man in the state could have done it better; and yet there is a wide-spread feeling that the subject is too difficult for the mass of teachers. Because of this feeling Prof. Sandison came before the county superintendents at their convention in June and explained the action of the board in selecting Plato for a second year. The substance of what he said was this: Plato is one of the world's original thinkers, and there are not many of them. While such thinkers are not easily understood it always pays to come in contact with them. Each reading of an original thinker gives new light and new thought; and although all the meaning may not be comprehended, enough will be gained to repay the study. Usually a second reading yields more profit than the first.

The "*Republic*" was studied last year and teachers became somewhat acquainted with it; now, if they will take it up again and read it a second time in the light of Dr. Bryan's notes and suggestions, they will certainly derive much benefit. Prof. Sandison put this in his masterful way and compelled those who listened to admit the truthfulness of his statements and feel the force of his argument.

There can be no doubt that those who faithfully study the "*Republic*" will be profited by it; but there is a question as to whether another book might not have been selected, that with the same study would have yielded more profit. It is one thing to study Plato in a class with Dr. Bryan or Prof. Sandison or some other student of philosophy as teacher or leader, and quite a different thing to study it by one's self and recite only one hour in a

month and then to have as a leader a person who has never made a study of Plato or any other philosopher.

The JOURNAL is compelled to join a majority of the county superintendents and a minority of the Reading Circle Board itself in believing that "The Republic" was not a happy selection—that the Board might have selected a book that would have been more helpful to most of the teachers. On the supposition that the selection was a mistake, and that a more helpful book might have been chosen, the question now arises, "What shall be done under the circumstances?" Shall all faithfully carry out the plan of the Board and use the books it has recommended, or shall each superintendent use his own best judgment and have his teachers use the book he and they may select?

The JOURNAL is entirely clear on this point. It recommends without hesitation, that the book selected by the Board be used—and faithfully used. Benjamin Franklin said to his associates, when discussing the proposed "Declaration of Independence," "We must hang together or hang separately."

The Indiana Teachers' Reading Circle is admittedly the best in the United States; and it is the best because it has hung together. The Board has usually made good selections and it has been sustained. All have worked in harmony and the result has been unprecedented.

Let each superintendent undertake to act for himself and select books for himself, and the great usefulness of the Teachers' Reading Circle is at an end. Let us "hang together."

DO NOT fail to renew your subscription at once in order that the file of your JOURNAL may be complete.

THE SCHOOL JOURNAL'S TEACHERS' CLUB is meeting with unexpected success. See the statement in regard to it on another page.

WILL not some of the teachers give to their pupils the "Problem in Mensuration" found in the Lend a Hand department? The Cook county pupils gave thirty-five different solutions. We will be glad to hear what Indiana pupils will do with this and will print some of the solutions if sent.

WE CALL special attention to the new advertisements in this issue of the JOURNAL. Teachers make a mistake when they think that it does not pay to read advertisements. All the new things and all the best things become known to the world through advertisements. If teachers would keep posted in regard to the things of interest in their profession they must read the advertisements.

THE JOURNAL wishes to repeat that the dismissal of Professor Hailmann as superintendent of the Indian schools, on political grounds, is a great disgrace to the present administration. The people of this country can not forgive Mr. McKinley for dismissing a competent man who had the hearty

support of everybody and every organization interested in the welfare of the Indians, thus turning this important branch of civil service back into the hands of politics. The highest interest of the Indian children should have prevented this.

BOOK EVALUATIONS.

CONDUCTED BY CHARITY DYE.

[NOTE.—*This department is not a library bulletin, but a teacher's exchange through which the experience of one will reach a number of others.*]

(Communications addressed to 1128 Broadway, Indianapolis.)

HISTORY CONTINUED.

No comment need be made upon books recommended by Miss Laura Donnan and Miss Frances Perry. The names of these women are sufficient to vouch for their judgment. They write out of their experience.

Harrison, Benjamin. Chas. Scribner's Sons. 1897. *This Country of Ours*. Suitable for persons of any age and of either sex. Subject, our national government in motion and the relations and uses of its several parts. Locality, chiefly Washington, D. C. Period, 1787-1897. Information, origin and nature of the constitution of the United States, and the manner in which and the success with which it is applied. Language in Harrison's usual, matchless style. No illustrations, but historical instances illustrating the points under consideration. Moral tendency such as to cultivate the loftiest and most intelligent patriotism, and to impress upon the humblest American his great responsibility as a citizen. A book that should be in every American household and, at least, in every public school room. Few, if any, books dealing with similar questions compare with it in depth and clearness of thought and in simplicity of expression.

July 12, 1898.

LAURA DONNAN.

Shaler, N. S. Century Co., New York. 1896. *American Highways*. Suitable for boys and girls of fifteen. Grade 9. Subject, Roads: A popular account of their condition and means of betterment. Locality, America in the nineteenth century. Information, scientific, practical. Language, simple, popular. Illustrations, good. The book is especially interesting and attractive to youths in rural districts.

June 27, 1898.

FRANCES PERRY.

Miller, Hugh. *My Schools and Schoolmasters*. Especially suitable for a boy. Age, fourteen. Grade 8. An autobiography of a self-educated scientist and author. Locality, Scotland, first half of nineteenth century. Information, character and life of Hugh Miller; natural history; peasant life in Scotland. Language, genial, clear, simple. Incites to self-respect and integrity. A masterpiece. Interesting, instructive, delightful.

June 27, '98.

FRANCES PERRY.

Gilman, Arthur, *editor*. Boston. D. Lathrop & Co. *Magna Charta Stories*. Suitable for both boys and girls from twelve to fourteen and grades 7 to 9. Subject, tales of heroism. Locality, different countries of the world. Period, B. C. to 1215 A. D. It shows how the idea of freedom has been pursued through the centuries. Language, clear and simple. Illustrations, good. Stimulates a love of history and presents some of the notable instances of freedom in the world's history from Horatius at the bridge to King John of England.

June 22, 1898.

MARY A. DYE.

Sterling, Amelia H. T. Nelson & Sons, London. 1894. *Torch-Bearers of History*. Suitable for boys and girls from twelve to fourteen. Grade, 7 to 9. Historical sketches from ancient Greece to modern Germany. Locality, Europe. Period from B. C. twelfth century, to 1546. Gives the idea how the torch of history has been handed on in Europe from age to age and from nation to nation. Language, simple. Illustrations, none. Eleven maps, chronological table of events and index. The writer has selected out of each of the great epochs some representative man or woman whose life would form an interesting story.

July 2, 1898.

MARY A. DYE.

Roosevelt, Theodore. Putnam Sons, New York. Four volumes. *The Winning of the West*. Suitable for boys and girls from twelve to eighteen. Subject, the west from the downfall of new France, 1763, to the admission of Ohio. Locality, United States, the West. Period, 1769-1807. Gives a general knowledge of Western history. Language, vigorous, picturesque. Illustrations, none. Gives a true picture of national development and larger appreciations of Western conditions in American history.

May 13, 1898.

CHARITY DYE.

TOWNSHIP INSTITUTE OUTLINES.

THE JOURNAL will aim during the coming year to give valuable help to the teacher in the preparation of his work for the Township Institute. The consideration of the two books selected by the Reading Circle Board—I. Plato's Republic; II. Social Elements—will form the bulk of this work. To discuss "*Plato's Republic*" we have secured the services of Prof. J. F. Brown, vice-president and professor of philosophy in Earlham College, last year instructor in philosophy in Indiana University. Professor Brown conducted a class in Plato at the University during the past year. He is a graduate of Earlham College and holds the degree of Doctor of Philosophy from Cornell University. He is eminently fitted to discuss this book in a manner that will be helpful to Indiana teachers.

To discuss "*Social Elements*" we have been fortunate enough to obtain the aid of W. A. Millis, superintendent of the schools at Attica. Professor Millis is a friend and student of Dr. Henderson, the author of "*Social Elements*." He has made a thorough study of sociology and has written two articles along this line for previous numbers of the JOURNAL. What he will

give the teachers is not mere theory. He has put his ideas into practical use in all the grades of his own schools, and as far as we know he is the only superintendent in the state who has done this.

The Outlines for Township Institutes at the time of present writing are not complete but will be in the hands of the teachers before the date of the preliminary institute. We follow the three lines marked out for the opening institute and promise that every effort will be made to give teachers the best possible help for their monthly work.

PLATO'S REPUBLIC.

A great many volumes have been written *about* the Bible. The book itself is diminutive in size when compared with single works that have been written concerning it. Yet all the commentaries in the world cannot take the place of the Bible itself to one who would really know it, understand it get into the spirit of it. Its treasures of truth and wisdom and inspiration grow in beauty and significance throughout a life time and they are dearer than any explanation of them can be. To substitute the latter for the former would be at best like taking silver in exchange for gold, or pearls for diamonds. It would be a substitution of the less for the more valuable.

It is so with Plato. No amount of explanation or discussion about Plato's Republic can avail to give the earnest student the understanding of it that is to be gained by a patient, loving, meditative study of the text itself. Not that explanations and commentaries and history and biography are of no use. They are invaluable but they should not be used as a substitute for that for which there is no substitute. There are passages in Plato as there are passages in the Bible which are not to be understood without some extraneous explanation. But if necessary, it were better not to understand or to misunderstand these few passages than to miss the life and spirit that comes alone from familiar acquaintance with the words of the great master. In the study of a great piece of wisdom literature (like the Republic), nothing can take the place of thorough familiarity with the literature itself.

If we have understood him correctly, Dr. Bryan emphasized this thought in his conference with the committee of the Reading Circle Board and he has reaffirmed it in the preface to his studies in Plato's Republic. We believe it is of fundamental importance. In the series of articles that may follow it is hoped that something worth while may be said, but they must in no sense be regarded as a substitute for a thorough study of the text.

The Republic was chosen as the professional part of this year's Reading Circle work. We may well expect, therefore, to find something of direct professional value in it for every teacher. The subject of specific interest is Plato's discussion of education and the treatment is of great interest and value from both an historical and a theoretical stand point. But it may be worth while to sound a note of warning lest in our busy anxiety to find the one thing that we are expected to find we see nothing else. There is a story of a boy who while walking along a muddy road, chanced to find a silver dollar. He was so pleased that he spent the remainder of his life scanning

the ground about his feet in search of dollars, and he found a good many of them, too. But he had missed seeing the blue sky, the shifting clouds, the beautiful flowers and birds and the glorious landscape. He made a mistake. The dollars were there and they were worth while, but they were not the only things that were worth while. So it may be with the professional reader of Plato's Republic. The treasures of professional worth are there but they are not the only treasures. To the intelligent wide-awake teacher a study of the Republic will bring power not more through the specific discussion of education than from the consideration of the great problems of life and right living—problems which are after all fundamental to any specific scheme of education, as they are to all intelligent living. The teachers of Indiana who will get the most of value from Plato's Republic this year are not those who read with a "professional idea" dimming their vision, but rather those who read with an unobstructed view, seeking not one thing alone, but seeking everything that is suggestive and inspiring.

Plato was not a professional teacher of pedagogy in the conventional use of that term. He was a lover of the true, the beautiful and the good and a seeker after them. He had caught the spirit of his great master, Socrates, in that his supreme interest was in life, human life, the good for man. The highest point in his philosophical system is his metaphysical notion of the good. The Platonic philosophy, both speculative and practical is essentially an ethical philosophy. Hardly anything contributes more to an understanding of Plato's thought than an appreciation of the teaching and personality of Socrates. This remarkable character, skeptic and believer, learner and teacher, lover of men and of truth, left his impress on the thought and the life of the world in a way which is in itself a source of tremendous inspiration to every humble teacher. Socrates never wrote a line so far as we know, but four schools of philosophy directly, and three more indirectly, trace their origin to his teaching. Socrates wrote nothing but he was the inspiration of Plato, who in turn taught Aristotle, and Aristotle became the teacher and friend of Alexander the Great, as well as the greatest intellectual giant that history notes. Many a faithful teacher may find comfort and inspiration in the thought that he may be the means of inspiring others more capable than he to do the great things he cannot do.

The Socrates of the dialogues is not in every case the real Socrates. Plato often makes him the mouthpiece for the utterance of sentiments which were Plato's own and not those of the real Socrates at all. The historic character of the latter is probably best represented in the Apology, Crito, and Phaedo, and in Xenophon's Memorabilia of Socrates. Socrates the man was interested in man and in the truth in so far as it was of value to men. He cared nothing for metaphysics and little for natural science or mathematics because he regarded them as contributing little or nothing to the welfare of humanity. His absorbing interest was in men, their life and doings, that is, in morality. Truth and character were for him inseparable. Plato went beyond his teacher and founded a system of metaphysics but it was a system of ethics as well. The idea of the good was the fundamental principle in both. It should be clear then that the intense ethical interest of Socrates was absorbed by Plato and pervades his whole philosophy.

TO RECAPITULATE.—1. The text of the Republic is to be most carefully studied. 2. It is to be studied with a clear vision, unobscured by any pedagogical notes. Not merely pedagogy but life is the subject under discussion. 3. An intelligent appreciation of the personality and teaching of Socrates will be of material aid in understanding the Platonic thought.

Pending the appearance of the Institute Outlines we may say that no better preparation for further work in the Republic can be made than that to be obtained from a careful (though not too careful) reading of the Republic throughout. The story, the characters, the style, the subject matter will thus take their places as parts of a united whole. Analysis and discussion may well come later. It goes without saying that Greek history, biography, art and literature may all contribute to the understanding of the Republic.

J. F. BROWN.

THE STUDY OF SOCIOLOGY.

The term *sociology* is employed as connoting the study of "the relations involved in man's existence and his well-being as a member of an organized community." It is the philosophy of society. Its task is to discover the principles that underlie and control social life. Sociology is the study of man viewed as co-operating with other men, his activities supplemented by theirs and again limited by theirs; the study of the together-living of people, considering all aspects of life, in families, clans, neighborhoods, cities, states and other groupings of population. The sociologist investigates the activities and conditions necessary to human existence; the co-operation of individuals in these activities and to secure the necessary conditions; the agencies employed by people, as government, church, school, the industrial system, clubs, societies; the functions of these agencies individually and collectively; their inter-relations; how they are operated; in what respect existing agencies are defective or redundant, and how they may be reformed; what new agencies are desirable. The motif in the study of social science is the desire of promoting human welfare. Hence the sociologist is largely occupied with social problems. Thus he observes the necessity of rearing offspring, of providing them support and protection during the period of immaturity, of providing a place of rest for the adult and preservation of food and clothing supply won in field or chase. He traces the establishment of the family and the development of the home as the agency by and with which the group perform the activities for which they co-operate. He observes the division of labor that goes on, the strengthening and refinement of the agency as time goes by, the multiplication of the wants of the members of the family as the home is elevated, and thus on to the summit of present civilization. He investigates the competency of the home as the agency of the highest family life, analyzes its defects and points out needed improvements. In like manner the student of social science traces the growth of the church as the agency created by persons voluntarily co-operating in their religious functions; he endeavors to determine the service of religion in promoting human welfare and the competency of the church as the agent through which this service is rendered. And

so with school, state and all the institutions of the people and functions of human life. He goes further and attempts to discover the relation of education and religion, of school and church; their respective fields of activity, their mutual responsibilities and limitations. Sociology, thus, in its widest meaning, involves the history of religion, education, politics, economics, polite society, dress, fashions, invention—of whatever has to do with the co-operative life of man.

Sociology has much the same relation to the work of the teacher that anatomy, physiology, and pathology bear to the practice of medicine. The physician has the two-fold task of preserving health, and of restoring the individual to normal condition when his health is disordered. The teacher owes the same service to society. That is, the function of the teacher is not primarily the instruction of the pupils in this and that subject, nor the making of a splendid individual, so much as it is the preservation of the attainments of society and the making of a new social order when the existing regime is faulty. I believe with Dr. Small that teachers "shall not rate themselves as leaders of children, but as makers of society," and that "the teacher who realizes his social function will not be satisfied with passing children to the next grade. He will read his success only in the record of men and women who go from school eager to explore wider and deeper these social relations, and zealous to do their part in making a better future." This is the mark of the high calling set out before us. We must conceive the school as the agency established and maintained for the purpose of promoting and securing the welfare of society by the social training of its youth. The teacher is primarily the community organizer, forming the social order of the future by culture of the growing generation. The primary function of the school is to promote social integrity and progress. This end, to be sure, is accomplished through the training of the individual, but the end is distinctly social. The educative process is determined by the laws of growth inhering in the constitution of the child, but the end to be reached by means of this process is determined by the constitution of society. That is, sociology discovers the object to be accomplished by the teacher; psychology determines the method of procedure to that end. It is clear then that the professional training of teachers must comprise as its basis the study of sociology as well as training in psychology. Teaching becomes live only when it is a purposed adjustment of means to a clearly comprehended end. Otherwise it is purely mechanical. I hold, therefore, that sociology shall constitute a large factor in the teacher's professional training because of its definition of the character of service demanded of him. But further than this, the student can not fully comprehend psychology until the individual is seen as a member of society. His real nature can be read only in light of the mass. "If we eliminate the social factor from the child," says John Dewey, "we are left only with an abstraction." One can not develop a truthful psychology by study of the individual taken apart from social relations. Apart from these relations he is no longer a concrete, living personality—he is but a fragment of the real being. His participation in the life of the mass very materially modifies the individual as an ego. Psychology becomes safe for guidance only when it is supplemented and corrected by

social science. Dr. Dewey is certainly right in saying that "knowledge of social conditions, of the present state of civilization, is necessary in order properly to interpret the child's powers. The child has his own instincts and tendencies, but *we do not know what these mean* (italics are mine) *until we translate them into their social equivalents*. We must be able to carry them back into a social past and see them as the inheritance of previous race activities. We must also be able to project them into the future to see what their outcome and end will be." To this add the weight of Dr. Harris who has declared that "a fundamental educational philosophy must be based not on physiology or even on psychology, but on sociology."

It is recognized in the best training schools that the safest judgment of educational values is developed in the study of the history of education. The significance of any particular school practice is most accurately determined by tracing its growth in the past. But a really vitalizing history of education must go back to and resolve itself into the history of human progress—of the social conditions prevailing during the period under consideration. That division of anthropology called "culture history" is necessary to the student of educational history as a means of interpretation of the theories and practices in vogue from time to time. Just as a knowledge of present civilization is necessary in order properly to interpret the child's powers, so a knowledge of past civilizations is necessary properly to interpret the educational agencies and activities of the people under study.

The study of society becomes a strong incentive to the study of history. Indeed, history becomes vital, and hence, educative, just in so far as its purpose is the solution of the social problems of the present. Historical data have significance for the pupil only as they are interpreted in the light of social conditions with which the pupil is acquainted, and they have value for him only as they are the means of explaining the various forms, usages, customs and institutions of our people to-day. Society as it prevails in the present time is the result of the growth of humanity through past ages. The story of this growth is the content of history, and the reason for its preservation is apparent in the necessity of explaining the present stage of human progress. Explanation of the present life of humanity is the motif which actuates all true historical effort. Thus it will appear that the study of sociology and of history must go hand in hand, the one supplementing the other, the study of sociology, however, furnishing the only valid reason for the study of history, and the only means of making it vital to the pupil. It is likewise with geography and literature. The study of geography aims primarily to discover where and how people live and in what manner and to what extent modes of living are determined by physical conditions and forces. Physical and mathematical geography have no vital meaning for the learner until he can see the facts thus presented in the light of their connections with the life of man. Literature is very largely the embodiment of great men's conceptions of the relations and activities that should prevail in social life. Most books are written in view of the social conditions prevailing at the time of their production and can be rightly and fully interpreted only in view of the social situation which gave them birth. That is, the study of sociology is necessary to the student in two ways: *First*, it is

necessary as a means of right, full and sympathetic interpretation of other subjects of study; *Second*, it is necessary in order to give purpose to other studies, to give them vital connection with the student's life, to give them meaning for the student.

Sociology has pedagogical value in another particular. In its fullest meaning it is the unifying science, "the science of survey, synthetic, teaching us to comprehend what special sciences dissect, analyze, and treat apart." It "indicates at the suitable points the relation of each special study or science to other studies and to the united interests of mankind." The primary object of sociology is to correlate the results obtained by other sciences, and to point out their application in promoting the general welfare. Just as the social life of the child is the center for the correlation of his studies, so sociology is the subject in which we discover the real correlation of the "subjects of study." Hence the teacher must go to social science to get a true comprehension, particularly a sympathetic comprehension of the proper correlation of studies and other school activities.

The teachers of Indiana are particularly fortunate just at this time in being offered Dr. Henderson's admirable book on "Social Elements." It deserves our very sympathetic and careful study. The book is not controversial and should not be approached in the spirit of controversy. The author is not a doctrinaire, not a theorist with some pet fancy to thrust upon the reader. As stated in the preface "the author has earnestly sought to stir and direct personal investigation and reflection rather than to furnish ready-made and dogmatic opinions. He has desired to be constructive and hope-inspiring rather than discouraging and destructive." The reader must approach the book with the same spirit. Dr. Henderson has looked into the life of "the people" and tells us what he has seen. He asks the reader to do the same; to use the book as a guide in investigating these questions for himself. Special attention is called to the suggestions for "local study" in the appendix to the volume. It is urged that the reader carefully follow those suggestions not only as supplementing the text, but as giving better appreciation of the discussions presented in the text. In this manner the thought of the author will best be "brought home" to the readers.

We bespeak for Dr. Henderson's book a very hearty reception by teachers of all classes and conditions, and promise that its careful study will yield a vast return in culture and pedagogical insight.

W. A. MILLIS.

METHOD—HOW DETERMINED.

School education is the process of consciously developing the mind, by one called a teacher, according to its inherent nature, by its own action and energy, toward self-directive action.

Method in school education is the systematic process of adjusting the means employed in this development to the end or aim which it sets up as its goal.

Successful adjustment in school-method requires four things to be understood in a masterful way :

One. The nature of the specialized subject.

Two. The purpose or aim of the particular subject.

Three. The means or appliances in the mind or out of it, by which the purpose is realized.

Four. The successive and orderly arrangements of the steps of the learning process.

The nature of a subject is found, first, in the faculties of the mind that predominate in learning or evolution of it (by the pupil of whatever age); second, in the kind of subject, judged by the objects that are its subject-matter and logical relations that predominate in it.

The aim of any particular subject is some specialized training of the mind, to be determined by a consideration of the nature of the subject itself, and of the mind to be trained.

The primary means are the processes of the intellect, the action of the emotions, and the fixing of a purpose in the pupil's mind. The secondary means are books appliances, study, instruction and recitation.

The systematic and orderly arrangement of the steps is illustrated by teaching idea A as the necessary antecedent of idea B, and idea B as the necessary antecedent of idea C, and so on through the whole series.

Each idea is itself a complex mental action, and the whole series of ideas is still more complex. Hence the adjustment of these complex actions so that one shall cause another and that a third is the real method, though perhaps the whole four steps previously mentioned might properly be considered as the method.

S. S. PARR.

SOLUTIONS REQUESTED.

[From *The Indiana Complete Arithmetic*, Page 284.]

Ex. 45. $\frac{1}{3}$ number sold = 21; hence, number sold = 63; $\frac{1}{3} \times 21 = 7$; $63 \div 7 = 9$; $\frac{2}{3}$ of the price = 9; $\frac{1}{3}$ of the price = $4\frac{1}{2}$; hence, price = $40\frac{1}{2}$; 63 cows @ $\$40\frac{1}{2} = \$2,551\frac{1}{2}$.

Ex. 46. The gain being divided among A, B and C in the proportion of 4, 5 and 3, their parts are $\frac{4}{12}$, $\frac{5}{12}$ and $\frac{3}{12}$, respectively.

A's $\frac{1}{3}$ gain for 10 mo., is $\frac{1}{30}$ for 1 mo., or, $\frac{1}{30} \times 10$;

B's $\frac{1}{4}$ gain for 14 mo., is $\frac{1}{56}$ for 1 mo., or, $\frac{1}{56} \times 14$;

C's $\frac{1}{6}$ gain for 18 mo., is $\frac{1}{108}$ for 1 mo., or, $\frac{1}{108} \times 18$;

$84 + 75 + 35 = 194$; $\frac{1}{30} \times \$10,252 = \$4,439.01$, A's investment; $\frac{1}{56} \times \$10,252 = \$3,963.40$, B's investment; $\frac{1}{108} \times \$10,252 = \$1,849.59$, C's investment.

$\frac{1}{30} \times \$6,300 = \$2,625$, B's gain; $\$3,963.40 + \$2,625 = \$6,588.40$; $\$6,588.40 - \$4,329 = \$2,259.40$, the amount A and C gain by B's withdrawal. This must be divided in the proportion of 84 to 35 (see above); $84 + 35 = 119$; $\frac{84}{119}$ of $\$2,259.40 = \$1,594.87$, A's gain; $\frac{35}{119}$ of $\$2,259.40 = \664.53 , C's gain.

Ex. 47. One for $\frac{1}{2}$ c. and one for $\frac{1}{3}$ c. = two for $\frac{1}{6}$ c., or one for $\frac{1}{12}$ c. (average purchase price); 5 for 2c. is at the rate of one for $\frac{2}{5}$ c. (average selling price). $\frac{1}{12}$ c. - $\frac{2}{5}$ c. = $\frac{1}{60}$ c., loss on each apple sold; to lose one cent he

must sell as many as the number of times $\frac{1}{60}$ is contained in 1, or 60 times; hence, he purchased and sold 60 apples.

Ex. 48. $\frac{1}{60}$ = part A, B and C do in one day.

$\frac{1}{48}$ = " B, C and D " "

$\frac{1}{40}$ = " C, D and A " "

$\frac{1}{30}$ = " D, A and B " "

Hence, $\frac{1}{80}$ = part 3A, 3B, 3C and 3D do in one day, or $\frac{1}{80}$ = part A, B, C and D do in one day.

From this, subtracting separately $\frac{1}{60}$, $\frac{1}{48}$, $\frac{1}{40}$ and $\frac{1}{30}$, we have respectively, $\frac{1}{240}$, $\frac{1}{160}$, $\frac{1}{120}$ and $\frac{1}{80}$, the parts D, A, B and C do in one day. The money may be divided proportionately to what each one does in one day, as they all work the same time. Adding, we get $\frac{1}{80}$; hence, the shares will be $\frac{1}{240}$, $\frac{1}{160}$, $\frac{1}{120}$, $\frac{1}{80}$, respectively, of \$152, or \$56, \$24, \$32 and \$40.

Ex. 49. The minute hand must gain 20 min., which will be $\frac{1}{11}$ of the whole distance passed over. If $\frac{1}{11} = 20$, $\frac{1}{11} = \frac{1}{11}$, and $\frac{1}{11} = \frac{20}{11} = 21\frac{9}{11}$; hence, the time will be $21\frac{9}{11}$ min. past 4 o'clock, or 21 min., $49\frac{9}{11}$ sec. past 4.

Ex. 50. The parts A, B and C do in one hour are respectively $\frac{1}{8}$, $\frac{1}{12}$ and $\frac{1}{16}$; adding, we get $\frac{1}{6}$, part A, B and C do in one hour. $1 + \frac{1}{6} = \frac{7}{6}$ hrs., time it takes all to do it. $\frac{7}{6}$ times $\frac{1}{8} = \frac{7}{48}$, part A does; $\frac{7}{6}$ times $\frac{1}{12} = \frac{7}{72}$, part B does; $\frac{7}{6}$ times $\frac{1}{16} = \frac{7}{96}$, part C does. $\frac{7}{48}$ of \$29.50 = \$7.00, A's share; $\frac{7}{72}$ of \$29.50 = \$12.00, B's share; $\frac{7}{96}$ of \$29.50 = \$10.50, C's share.

Ex. 51. The average price per stove = \$9. We must find a group that will preserve the average.

(a) A stove at \$19 exceeds the average \$10.

(b) A stove at \$7 falls below the average \$2.

(c) A stove at \$6 falls below the average \$3.

To preserve the average, we must fall below it as much as we exceed it. It is easily seen that to do this we must sell 2 stoves of the (b) kind and 2 stoves of the (c) kind for every one that we sell of the (a) kind. In this lot of five stoves the average is preserved. Four lots of this kind will make twenty stoves, in which we would have (4×1) stoves at \$19; (4×2) stoves at \$7; and (4×2) stoves at \$6.

SCHOOL ORGANIZATION.

For suggestions on this subject see INDIANA SCHOOL JOURNAL for September, 1889, pp. 561-565.

See also August JOURNAL for 1897, p. 567.

A CHANGE.—The readers of the JOURNAL who are interested in the answers to the State Board questions will see that the policy of the JOURNAL has been changed, and that hereafter the answers will appear one issue earlier than heretofore. This makes it necessary to omit one set of questions. The questions used the last Saturday in July are answered in this issue.

MISCELLANY.

E. E. VANSCHOYOC, of Wingate, and Walter N. Vanschoyoc, of New Market, conducted a normal and review term at Wingate, and had good results.

THE CLINTON COUNTY SUMMER NORMAL was held at Frankfort under the direction of B. F. Moore, superintendent of the Frankfort schools and county superintendent J. H. Grover. These gentlemen were ably assisted in the instruction by Frank B. Long, principal of the Colfax schools. The writer spent a day in the school and decided that it was well taught. It was largely attended.

WE ARE in receipt of the catalogue of Indiana University for 1897-'98. It contains one hundred and forty-six pages and is replete with information concerning the head of Indiana's great common school system. There are sixty-four members of the faculty, representing thirty-seven of the best educational institutions of Europe and America, and they offer work in nineteen departments comprising two hundred and fifty-six courses. The growth of the University during recent years has been rapid and for the first time in its history the attendance exceeds one thousand, the exact enrollment for the year just ended being one thousand and forty-nine. During the University year of 1897-8 ninety of the ninety-two counties were represented and during the calendar years of 1897-8 every county in Indiana had students in attendance. While the applications for admission for next year are more numerous than ever before it is probable that the present equipment and the additional requirements for entrance will make it desirable to limit the number to a thousand in 1898-9.

A CORRECTION.

Allow me a little space to make a correction and thereby answer several inquiries in regard to a statement I made on page 406 in the June JOURNAL about "A Difficult Problem."

The statement should be—The hypotenuse of a right angled triangle is $\frac{5}{3}$ of the perimeter and the two adjacent sides are $\frac{4}{3}$, when one of the sides is $\frac{1}{3}$ or $\frac{1}{4}$ of the perimeter. Respectfully,

Farmersville, Ind.

E. E. ELLIS.

THE TRI-STATE NORMAL.

This school located at Angola, in the extreme northeastern part of the State, and drawing its patronage from two other states is not so well-known to Indiana teachers as it deserves to be. From the first it has taken special pride in the high order of its work. Its classes are not so large but that each student can receive special attention in each recitation. The classical department of this school is made a prominent feature. President L. M. Sniff is assisted by an able corps of instructors. A letter to the President will bring all desired information.

SCHOOLBOOK CONTRACT.

D. M. Geeting, president, and David K. Goss, secretary of State Board of Education, have issued the following address to the school officials of Indiana:

"Pursuant to the provisions of the schoolbook laws of the State 1889 and 1891, the State Board of Education, sitting as a State Board of Schoolbook Commissioners, May 21, 1898, decided by unanimous vote to advertise for bids to supply the public schools of the State with a series of copy books and geographies at the expiration of the present contract, for the five years beginning 1899, and July 2 to advertise for bids to supply the public schools of the State with a series of arithmetics at the expiration of the present contract for the five years beginning 1899."

"On July 2, 1898, it was also decided by unanimous vote to revise the Fourth and Fifth Readers at the expiration of the present contract for the five years beginning 1899."

CENTRAL NORMAL COLLEGE.

This school located at Danville, is one of the most prosperous independent normal schools in the country. The annual enrollment reaches about twelve hundred different students. Its summer term has enrolled over four hundred students, and its spring term enrolled about eight hundred. It employs fourteen regular teachers and sustains ten different departments.

The school is twenty-two years old, and the last year has been the best in its history. President J. A. Joseph has been at its head the past nine years and has proved himself a good man for the place.

The faculty contains several unusually strong men. Professor J. L. Spillman will return to his post the coming year, having been out two years to complete his preparation. He took a degree from the Indiana University, last June. The school stands for practical, thorough work. It graduated at its last commencement, about one hundred students from its various departments. The writer recently spent a day in this school and speaks from personal observation.

THE HISTORICAL CONFERENCE.

At the last meeting of the State Teachers' Association in December, a number of persons who were especially interested in the teaching of history in Indiana, met together and talked over the project of a sectional organization. At that meeting a committee was appointed to organize a section of the State Association whose attention should be devoted especially to the teaching of history and civics. The committee was also to prepare a program for the first conference, which, it was desired, should be held at some other time than during the days of the sessions of the State Association.

The committee's work was seen in the very successful conference held at Indianapolis on June 16, last, at which a goodly number of teachers and superintendents who are interested in the teaching of history and civics were present. The conference took only two subjects under consideration :

1. *A High School Course in History and Civics.*
2. *The Teaching of History in the Grades.*

The desire was to consider the general subject of *History below the College*. The first subject, A History Course for the High School was discussed by a symposium, led in a brief paper by Professor Ulysses G. Weatherly, associate professor of modern history in the State University. Professor Weatherly called attention to the fact that while high school courses of study had been extended to three and four years, the competition of the various branches had been increased rather than diminished by the increase of time. There has been a tendency to keep history down in time and to avoid regarding it as a specialty worthy of a teacher especially trained in this subject. Dr. Weatherly urged that whatever time be allotted to history, whether one year or four, should be given to the study of special states, or periods and that about these subjects there should be grouped the chief facts of other contemporary movements. By studying one subject intensively we give our work a chance to take root and grow, and we have something to which we can anchor the other facts studied. Usually in our high schools, one year has been devoted to the whole field of general history. Beginning at the beginning with the earliest oriental nations, the course runs over, with equal emphasis, the whole period down to the present day, studying one day Italy, the next France, the next Poland, the next Spain, the next England and so on. The objection to this is that it distracts the attention and does not go beneath the surface at any point. It prevents intensive study. It does not leave the mind long enough, or vitally enough, in contact with any period, or movement, to allow of that movement's becoming a part of the student's real life.

Dr. Weatherly outlined in his paper, the following as a suitable high school course :

First Year. The history of Greece and Rome. If only one year can be given to history let this work be that year. The students will then have a better appreciation of what history is and how it ought to be studied.

Second Year. The history of France, with reference also to the general history of Europe from the fall of the Roman Empire. Instead of this course the history of England might be substituted.

Third Year. Civics with advanced American history, with special reference to political institutions and the growth of American ideas.

Fourth Year. Elementary Political Economy and Sociology, designed especially for those who are not prospective college students.

These suggestive ideas of Professor Weatherly brought out an animated discussion from those who followed him in the symposium. Among those taking a part in the discussion were Professor Hodgkin, of Earlham ; Superintendent R. I. Hamilton, of Huntington ; Mr. A. L. Fulwider of the Lebanon High School ; Miss Adelaide Baylor, of the Wabash High School ; Mr. Bedgood, of Lafayette ; Mr. Meek, of Terre Haute and Professor Stevenson of DePauw. The discussion brought out these prominent questions in the minds of the conference.

Shall we insist upon a High School course of four years in history? What time shall be allotted to the special study of *Civics*?

Shall the course be the same for all students? Shall prospective college students have a different course arranged for them? Should special courses be attempted in Economics and Sociology, or should these subjects be made incidental to History and Political Science?

Should the course attempt to cover the whole field of General History, or should more intense study be attempted upon particular periods?

Should American History be a part of the High School course? And should General History be developed more in the grades?

On many of these questions there was pretty general agreement, on some there was sharp differences of opinion. The chairman insisted that the work of the conference should not end in talk, leaving its subject suspended in air, but that the possible agreements of the conference should be formulated and its conclusions be put into tangible shape. Accordingly a committee was appointed, with Professor Hodgkin as chairman, with instructions to formulate and report at the evening session, what was evidently the sense of the meeting.

At the evening session at the Bates House, Professor Kemp, of the State Normal School, read a very able and thoughtful paper on *History in the Grades*. Professor Kemp's ideas on the teaching of history are well known to the teachers of Indiana. The systematic and philosophic organization of his course, from the first grade to the last, would bring the student, under competent teaching, to his advanced work well prepared. The one thing which Professor Kemp most emphasized was the intelligent and scholarly preparation of the teacher. This paper was discussed by Mr. Hieronimus, teacher in the Richmond Grades, and Miss Georgia Alexander, of Indianapolis. The discussion brought the subject into close connection with the themes of the afternoon.

The conclusions of the conference were voiced in the report from Professor Hodgkin, on behalf of his committee. The report briefly summarized, contained the following recommendations:

1. A minimum course of three years in history.

- (a) First year, Greek and Roman History, one-half year to each.

- (b) Second year, French and English History, a half year to each bringing into view the main movements of Continental Europe in connection with France and emphasizing the development of political institutions in connection with England.

- (c) Third year, American History and Civics, including a study of the state government and history of Indiana. Each course involves five periods, or recitations a week. In the third year, Civics,—or the study of Politics and the Constitution—should be brought into close relation to the course in American History. This is intended as a year of intensive study on some particular phase, or period of our national development. An optional fourth year course in Economics and Sociology was recommended, where time and opportunity afforded.

It will be seen that the Conference agreed, in the main, with Professor Weatherly's contention that general history can best be taught through being grouped around the history of particular states and institutions. In general it was agreed that the High School course must be adapted, mainly,

to the needs of those who are not to take any further study in the college. The one course should be made for all. Adequate time—not less than three years—and specialists as teachers, or those who have some special preparation for the teaching of history, must be insisted upon. Methods and text books were incidentally discussed, and these themes will probably be given special attention at the next meeting.

The History Section was permanently organized. A committee on organization, Superintendent Short, of Liberty, chairman, reported through its secretary, Superintendent Brown, of Bloomfield, a brief constitution and the following list of permanent officers: President, Professor Kemp, of the State Normal School; vice-president, J. M. Culver, South Bend; secretary, Miss Bâylor, of Wabash; treasurer, Superintendent Carnagey, of Columbus.

An executive committee, with the new president as chairman, was appointed to arrange a program for the next meeting, and to provide if possible, that the cause of this Section be properly represented before the General Association of teachers next December. All left this conference with the feeling that it had been a very profitable occasion and that they had seen the beginning of much good to the cause of historical teaching in the state.

JAMES A. WOODBURN.

Bloomington.

NORTHERN INDIANA NORMAL SCHOOL.

This school will celebrate its twenty-fifth anniversary at the close of the present school year, August 10-11. From the first it has held five terms each year, of ten weeks each.

It started with three teachers and thirty-five students, a single building, no library, no apparatus, and only one department. It now employs fifty-two teachers and has an annual enrollment of over three thousand. The writer recently spent a day in the school and found more than two thousand actually on the ground. This has been the largest summer term with a single exception in the history of the school.

Instead of one building there are now five large school buildings, including a chapel that will seat over two thousand, besides dormitories and other buildings owned by the school with capacity to accommodate comfortably fifteen hundred students. There are accommodations in the immediate vicinity of the school to accommodate three thousand students.

The school now sustains *nineteen* different departments, all supplied with modern appliances and all instructed by experts in their specialties.

The school has kept pace with the demands of the times and is growing better every year. No expense is spared that is necessary to furnish it with the best the country affords. It richly deserves its unprecedented success.

H. B. Brown was its founder and has been its inspiration all these years. Notwithstanding his large business interests, he spends a part of each day in teaching. In this way he keeps in close touch with the school.

O. P. Kinzie, the vice-president, is also an able teacher and a man of unusual business ability. The two together make a strong combination.

The anniversary occasion is expected to be a time long to be remembered. Old students are coming from all parts of the country. Lieutenant-Governor Haggart, Secretary of State W. D. Owen, State Superintendent Geeting, the State superintendents of three or four other states are expected to be present and make addresses.

The twenty-sixth year of the school will open Aug. 30.

PERSONAL.

B. F. MOORE will remain a ninth year as superintendent of the Frankfort schools.

JOHN A. HILL resigns at Tipton to accept the principalship of the Frankfort high school.

E. E. OLCOTT, superintendent of the Charlestown schools, spent the summer term at Indiana University.

W. T. BROWN, superintendent at Bloomfield received his M. A. degree at Indiana University at last commencement.

O. P. FOREMAN, for many years principal of the high school at Rockport, has been elected principal of the high school at Vincennes.

ARNOLD TOMPKINS has just returned from Massachusetts and New Hampshire, where he had three weeks of institute work. He and his good wife honored the JOURNAL office with a call.

J. E. BROWN of Earlham College, who discusses the Plato's Republic for the JOURNAL will be glad to make engagements to lecture at teachers' associations and institutes. We know he will give satisfaction.

C. H. WOOD and three of his high school teachers are spending the summer at Chicago University, doing professional work. Three other high school teachers and several of the grade teachers are doing like work in other schools. This means progress.

ALBERT G. LANE, for many years superintendent of the Chicago schools has been reduced to the rank of *assistant* superintendent, and his salary has been reduced to \$6000. This is hard on Mr. Lane—especially that he should be compelled to live on such a salary.

ELMER B. BRYAN will not supervise the grammar grades at Indianapolis, as announced last month. He has declined the flattering offer and will carry out his original design. He will go to Boston next year for study and will incidentally do some pedagogical work for which he will receive good pay.

THOMAS NEWLIN, formerly principal of Spiceland Academy, but for several years past president of Pacific College, Newburg, Oregon, is to do several weeks' institute work in Indiana this summer. The JOURNAL extends to him a cordial welcome, and counts those counties fortunate that have secured his services.

O. T. CORSON, having completed his sixth year as School Commissioner of Ohio, has turned over his office to his successor. Mr. Corson has made an efficient officer and stands well with Ohio teachers. He was president of their last State Association and at its conclusion was presented with a handsome tea service by the teachers. He is editor of the *Ohio Educational Monthly* and will hereafter devote his entire time to this excellent magazine.

SANFORD BELL, for two years past at the head of the pedagogical department of the Northern Indiana Normal School at Valparaiso, has secured leave of absence and accepted the position of assistant professor of pedagogy

in Indiana University. Mr. Bell makes this change in order that he may spend a part of his time in study. He has done a remarkable work at Valparaiso. No man in the State has a more brilliant future before him than has Sanford Bell.

FRANK L. JONES, superintendent of the Tipton schools is candidate for Superintendent of Public Instruction, subject to the endorsement of the Republican Convention. He is one of the vigorous, progressive young superintendents of the State. He secured leave of absence from his work, spent the spring term in Indiana University and secured his degree at the last commencement. If Mr. Jones should secure the nomination and be elected he will fill the place with credit to himself and the State.

W. N. HAILMANN, until recently superintendent of Indian schools has been elected superintendent of the Dayton, Ohio, schools, and has accepted the place. The election to such a place would be an honor under any ordinary circumstances, but it is a mark of special honor in this case, as Mr. Hailmann was not an applicant. He is one of the leading educators of this country and Dayton is to be congratulated on securing his services. This is a better position than he had before and his many Indiana friends extend congratulations.

PRES. E. BENJAMIN ANDREWS, of Brown University, has been elected superintendent of the Chicago schools, in place of Albert G. Lane. It will be remembered that President Andrews was an ardent "free silver" advocate two years ago, and on that account got into trouble with his trustees. His free silver notions are now bearing fruit. The removal of Superintendent Lane was a political, not an educational movement. Mayor Harrison did it with his little hatchet. Mayor Harrison believes in free silver—see? President Andrews is one of the ablest educational men of this country, but his work has not been along the line of public schools.

DEATH OF P. EBERHARD STADLER, O. S. B.

It was with mournful pealing that the bells of St. Ferdinand's Church announced the death of Rev. Father Eberhard Stadler, the beloved pastor of Ferdinand on the night of June 28th.

Great was the grief of the entire congregation, at the loss of him who had guided and directed them during twenty-seven years, as was manifested by the grand and imposing funeral procession.

Rev. Father Eberhard Stadler was born at Welfensberg, Canton Thurgau, Switzerland, Feb. 1, 1830. He attended the colleges of Fisingen and Einsiedeln in Switzerland and was ordained priest in 1857.

Soon after he bade farewell to his native country in order to devote himself to the newly established missions of the Benedictines in southern Indiana. After having proved himself an energetic and zealous clergyman in various positions, he was appointed pastor of the congregation of Ferdinand by the Rt. Rev. Abbot Marty, then abbot of St. Meinrad's Abbey in 1871.

It can hardly be estimated what the deceased did during these twenty-seven years in order to promote the welfare of his parish in every respect. We will here only allude to the interest that he evinced in the work of education. He was always solicitous to provide the schools under his supervision, with competent teachers and made use of every means to promote the advancement of the teachers as well as of the pupils. His influence was not confined to the parochial schools, nor the schools of Ferdinand, but extended to a great number of public as well as parochial schools in southern Indiana. He was a great favorite of the children, who loved and esteemed him as their friend and father.

Though he is gone the work that he has done will prove its effects and the seed that he has sown will not fail to produce most excellent fruit.

QUESTIONS AND ANSWERS.

STATE BOARD QUESTIONS USED IN JULY.

ARITHMETIC.

1. *A room is 30 feet long, 18 feet wide, and 12 feet high. It has 2 doors, 3 feet by 7 feet each, and 3 windows, each 3 feet by 5 feet, and a wainscoting 2½ feet high. What will it cost to plaster the walls and ceiling of the room at 30 cents per square yard?*

$(30 + 30 + 18 + 18) 12 = 1152$, total number of square feet in walls.

$3 \times 5 \times 3 = 45$, deduction for windows.

$3 \times 7 \times 3 = 42$, deduction for doors.

$90 \times 2\frac{1}{2} = 225$, deduction for wainscoting.

312, total deductions.

$1152 - 312 = 840$, number of sq. ft. to be plastered.

840 sq. ft. = $93\frac{1}{3}$ sq. yds. walls.

$30 \times 18 = 540$, number of sq. ft. in ceiling; 540 sq. ft. = 60 sq. yds; $93\frac{1}{3}$ sq. yds. + 60 sq. yds. = $153\frac{1}{3}$ sq. yds; $153\frac{1}{3}$ sq. yds. @ 30 cents = \$46.

2. *Most pupils seem to find great difficulty in solving problems similar to the above. How soon in the school life of the pupil would you assign such a problem? With what kind of problems would you lead them to a knowledge of the process necessary in the solution of one of such difficulty as this?*

(a) To pupils in the Sixth Grade, if their previous instruction has been of the proper nature. (b) With problems (1) in rectangular surface measurement; (2) in reduction of compound numbers; (3) in finding the cost when the amount and the price are given.

3. (a) *I sell $\frac{2}{3}$ of a quantity of grain for what $\frac{2}{3}$ of the entire quantity cost me.*

(b) *I sell the remainder for what $\frac{1}{10}$ of it cost me. Do I gain or lose in the end? What per cent?*

Cost price $\frac{2}{3}$; selling price, $\frac{2}{3} + \frac{1}{10} = \frac{17}{15}$; loss, $\frac{2}{3} - \frac{17}{15} = \frac{1}{5}$; loss % = $\frac{1}{5} \div \frac{2}{3} = \frac{3}{10} = 15\%$.

4. *Explain as you would to a class the difference between True Discount and Bank Discount.*

First, see that the pupils have a clear idea of present worth. It is simply the principal which if put at interest for the time and rate will amount to the debt. The difference between the present worth and the debt is the *true discount*. Bank Discount is simply interest on the face of the note, for the rate at which the bank is discounting, and for the time, increased by three days. In giving the explanation, it should be illustrated by appropriate examples.

5. *I desire to draw \$77.66 from bank. For what amount must I execute my note for 6 months in order to secure this amount, discount being 6 per cent?*

$\$1 \times 180 \times \frac{1}{100} = \1.80 , $\$1888 - \$1.80 = \$1886.20$, proceeds of one dollar.

$77.66 \div \frac{1886.20}{100} = 80.10 +$; hence the face is \$80.10 +.

6. *I sold a horse to A at a gain of 25 per cent. A sold it to B for a like gain. B sold it for \$390 which netted him a profit of 25 per cent. What did the horse cost me?*

To the first salesman the cost is 100 %.

He sells it to A at 25 % gain, or 125 %.

A sells it to B at 25 % gain, or 156 $\frac{1}{4}$ %.

B sells it at 25 % gain, or 195 $\frac{1}{8}$ %.

195 $\frac{1}{8}$ % = \$390; 1 % = \$1.9968; 100 % = \$199.68.

HISTORY.

1. *What two things were proved by Magellan's voyage?*

"Of all voyages ever made by man this was the greatest. In the first place it proved beyond dispute that the earth is round. In the second place it proved that South America is a great continent and that there is no short southwest passage to India."

2. *In what respects did the English Colonies differ from the French?*

They differed as to location: The English colonies had taken root along the Atlantic coast. The French colonies were located northward, and hence differed as to climate. Canada, the oldest of the French colonies, was too cold to be a prosperous farming country. In military character the French were the superior, but they were inferior in number to the English. The English colonies could never be made to act together; the French were kept unified by their governors. The French were more influential in their management of the Indians and held to the policy of making friends with them. They were anxious for the profits of the fur trade and were zealous in their efforts for the conversion of the Indian. On the other hand these things did not appeal to the English; their source of wealth were farming and commerce.

3. *Upon what grounds did the colonists deny the right of Parliament to levy taxes?*

Upon the grounds that people must not be taxed except by their own representatives.

4. *What states claimed territories in the Mississippi Valley on account of the "from sea to sea" clauses in their charters? What one claimed by purchase? How did these claims delay the adoption of the Articles of Confederation?*

(a) Massachusetts, Connecticut, Virginia, North Carolina, South Carolina and Georgia? (b) New York. (c) Three of those states that had no claims to western lands held that the claims of their sister states were invalid, and refused to adopt the Articles unless the land so claimed was given to Congress to be used to pay for the cost of the Revolution.

5. *Give brief account of the Louisiana Purchase.*

The greatest event of Jefferson's term of office was the purchase of the territory west of the Mississippi ceded by Spain to France. Robert Livingston and James Monroe were the agents for the United States. The price was \$15,000,000. One-fourth of this sum was due from the French government to American citizens for injuries to their commerce. These claims

were assumed by Congress and paid from the purchase money. The Constitution gave no express power to the President thus to add new territory to the United States, but this purchase was so clearly for the good of the nation that people generally applauded it. Many Federalists at first tried to condemn it, but they only could do so by abandoning their loose construction of the "Elastic Clause."

6. *What commercial conditions led to the making of the Erie Canal? How did this canal affect Philadelphia and Baltimore?*

(a) The cost of transportation west was very great. It was evident that a continuous waterway between New York city and the West would be of incalculable advantage to both sections. It would open a market to the western farmer for his produce, and would furnish an outlet for eastern goods and imports. (b) The New York merchant now had the whole West for his market and by one stroke had taken away the western commerce of Philadelphia. This city, with the adjacent country, was thus stimulated to take action relative to opening up a highway to the West, and the energy on the part of Philadelphia urged the city of Baltimore to action, which resulted in beginning work on a railroad from that city to some point on the Ohio river.

7. *What were the causes of the "Financial Panic" of 1873?*

It was brought on chiefly by rash speculation in western railroads. This excessive railroad building increased more rapidly than it could receive support. The immense expansion of railroads and the great outlay necessary for rebuilding Chicago and Boston absorbed money and made it difficult to get. Just at this time a quarrel between the farmers and the railroads of the West made matters worse by stopping the sale of railroad bonds, and thereby crippling the enterprises that depended upon such sale for funds. It impaired the credit of bankers concerned in railroad building, and in September, 1873, a run on them for deposits began till one of them, Jay Cooke & Co., failed, and at once a panic swept over the business world.

GEOGRAPHY.

1. *What are Trade winds? Why so called? How caused?*

Over the equator the air is always warmer and more expanded than that nearer the poles, and hence throughout the year there are nearly constant winds blowing toward the equator from some distance on both sides. These winds are especially well marked on the level surface of the open oceans. They are gentle, steady winds, and are called trade winds. The word *trade* once meant a *trail* or path. The trade winds took their name from the steadiness with which they follow a path across the sea, and *not* from the fact that they are helpful to commerce or trade. The turning of the earth on its axis turns these winds westward, so that they flow into the hot belt from the northeast and the southeast.

2. *What relation does geology bear to geography?*

Geology underlies and ante-dates geography. Each treats of structure, one below the surface, the other on the surface. One treats of its history as regards rocks, rivers, mountains, etc., and the causes and methods by which

structural changes have been produced. The other treats of the earth as the present home of man; its description as to its surface, products, political divisions, and the people by whom it is inhabited.

3. *Give a brief synopsis of the 7th year geography work as outlined in the State course of study.*

(See State Course of study.)

4. *Why is Alaska so valuable to the United States? What is its form of government?*

Alaska is valuable to the United States on account of its fur, fish, forests and minerals, especially gold. Alaska has not yet a regular territorial government, but it is ruled by a governor and several commissioners appointed by the Federal government at Washington.

5. *What countries constitute the three great peninsulas of southern Europe? Historically, which is the most interesting? Why?*

The countries constituting the three great peninsulas of southern Europe are (a) Spain and Portugal; (b) Italy; and (c) Greece and Turkey.

Historically Greece is considered the most interesting, on account of its great advancement in the past in art, literature, science, and philosophy. Italy is also interesting on account of its relation to the Roman Empire.

6. *Name in order of importance the six principal seaports of the United States.*

New York, Boston, Philadelphia, San Francisco, Baltimore and New Orleans.

GRAMMAR.

1. *In teaching language to pupils of third year grades what lines of work pursued in first and second years would you continue and which cease to follow?*

All the agencies before used should be continued; some stress must be withdrawn from the oral exercise and put upon the reading and writing exercises. The pupil must be led to use the book more, and to depend less upon the teacher's help (talk.) (See pages 55 and 56 of Language-Arts.)

2. *In what respects do you think the composition writing of pupils of third, fourth, and fifth year grades should differ from each other and from higher grades?*

The following should be the composition work of the third, fourth, and fifth grades, and should differ from each other only in grade of difficulty, or in minuteness of detail:

The reproduction of stories and biographies after having told them orally, or after having heard them told or read; descriptions of familiar objects such as a bird, a flower, a dog, a wagon, etc. The narration of some day's experience, or outing, etc. The work of higher grades should gradually advance into more difficult subjects such as Decoration Day, Story of a Soldier, Scene at a Railway Station, Experience of a Day, etc., and should gradually introduce the ideas that can be furnished by judgment and reflection. The "imitation of chosen models" and "translation" are also recommended. (See pages 57 to 61.)

3. *Of what importance in language culture do you deem the work of paraphrasing? At what point in the advancement of the pupil would you have it done?*

Paraphrasing of narrative verse is recommended. It may be begun, with proper selections, in the eighth grade. (See pages 58 and 59.) Its importance lies in the improvement of the style of the pupil, in the enlargement of his vocabulary, and in the increased power gained in literary interpretation.

4. *To what extent would you advise the copying or following of choice literary masterpieces by pupils below the high school? What value do you place on such work?*

To a very limited extent; yet such an exercise is profitable, in enlarging the pupils vocabulary; in giving breadth of thought; and in strengthening the pupil's power in sentence formation. It may in time improve the pupil's style. (See pages 59 and 60.)

5. *Correct and give reasons therefor: (a) This bat is for you and I to play with; (b) Who did you take him for? (c) It was I who said that, not him; (d) I don't like those kind of apples; (e) I had three chances, neither of which I took advantage of.*

(a) This bat is for you and me to play with; "me" the object of "for;" (b) Whom did you take him for? "Whom" is the object of "for;" (c) It was I who said that not he; "he" is the pred. nom, after *was* understood; (d) I don't like *that* kind of apples; "that" is singular to agree with "kind;" (e) I had three chances, of *no one* of which I took advantage. Use *no one* instead of "neither" when more than two objects are mentioned.

PHYSIOLOGY.

1. *Locate the masseter and temporal muscles and give their functions.*

Temporal muscle:—origin, temporal, parietal and frontal bones; insertion, lower jaw.

Masseter muscle:—origin, superior maxillary and malar bones; insertion, lower jaw. Their function is to raise the lower jaw.

2. *Describe the gross and minute structure of the femur.*

The femur is the longest and heaviest bone in the body; it is a long compact shaft, with two enlarged sponge-like, cartilage-tipped extremities. The central shaft is composed of a thick shell of hard osseous tissue surrounding a cavity filled with fatty tissue.

3. *What are the dura mater and pia mater and what are their functions?*

The *dura mater* is a tough, dense, inelastic, fibrous membrane lining the skull and the spinal canal. It holds the parts firmly in the spinal canal and answers as an internal periosteum to the bones of the cranium, to which it furnishes blood. It also forms a protective covering for the brain.

The *pia mater* is a delicate fibrous membrane directly covering the brain and spinal cord; it carries a great number of blood vessels, which, branching out from it furnish the brain with blood.

4. *Locate the white and the gray matter in the brain and in the spinal chord.*

The gray matter forms a layer nearly a quarter of an inch thick on the outside and following the convolutions. Inside of the gray matter is a mass of white matter. In the spinal cord the gray and white matter occupy reverse positions from that in the brain. The gray matter forms a mass in the center which on cross-section appears somewhat in the shape of the letter H.

5. *Describe the blood.*

It consists of a multitude of flattened plates called the red blood corpuscles, or cells, floating in a colorless liquid, which also contains a few round colorless cells, called white blood corpuscles. The liquid part is called the plasma. It is composed of ninety parts of water. The mineral matter is mostly soda and potash. The blood is a red, warm, heavy, alkaline fluid, slightly salt in taste and has a somewhat fetid odor. Its color varies from bright red in the arteries and when exposed to the air, to various tints from dark purple to red in the veins.

6. *What are lymphatic glands and where are they situated?*

They are small bodies, varying from the size of a grain of wheat to the size of an almond, and are pinkish gray in color. They are found in the course of the lymphatic vessels, in various parts of the body, but more numerous in the neck, arm-pits, space behind the knee, groins, and in the folds of peritoneum which hold the intestines in place.

7. *How are the heart-beats and respiratory action correlated and what is the relation of one to the other?*

They are correlated through the nervous system. The heart's action is regulated and adapted to the varying needs of the body through two sets of nerves, one from the brain and one from the spinal cord, the latter in physical exertion, causing it to beat faster and more forcibly.

Some of the branches of the pneumogastric nerve restrain the movements of the heart; others convey impressions to the brain, which result in quickening or slowing the movement of breathing.

Exercise, etc., quicken the circulation or heart-beats and hence increase the excretion of carbon dioxide; this necessitates a larger amount of oxygen, which can be supplied only by more rapid breathing.

8. *What is meant by tidal air, complementary air and residual air?*

With each quiet inspiration about 30 cubic inches of air enter the lungs, and 30 cubic inches pass out with each expiration. The air thus passing into and out of the lungs is called *tidal* air. After an ordinary inspiration the lungs contain about 230 cubic inches of air. By taking a deep inspiration about 100 cubic inches more can be taken in. This extra amount is called *complementary* air. After an ordinary expiration about 200 cubic inches are left in the lungs, but by forced expiration about one-half of this may be driven out. This is known as *supplemental* air. The lungs can never be entirely emptied of air, about 75 to 100 cubic inches remaining. This is known as *residual* air.

SCIENCE OF EDUCATION.

1. *What is the theme of the Phaedrus?*

It has two: Love, the leading theme, and rhetoric, the subordinate or attendant theme.

2. *What is meant in this dialogue by the transmigration of souls? What evidence is there that Wordsworth held this doctrine?*

(a) The migration of the soul from one body to another. (b) Read Wordsworth's "Intimations of Immortality."

3. *What educational thoughts of value are expressed in the Phaedrus?*

The following thoughts of value are to be gained: (a) That ease, freedom of expression and unity of feeling should exist between the pupil and the teacher; (b) that the teacher must be enthusiastic and in earnest, if he expects to arouse interest; (c) that the teacher should, as far as possible be interested in what interests the pupil; (d) that the teacher should be an example worthy of imitation; (e) that the teacher should know the subject to be taught, and also the child that is to receive the instruction.

4. *What are the main teachings in the Phaedrus?*

(a) That the true teacher is a dramatist. (b) That to be successful in the art of discourse requires a knowledge of truth and a knowledge of those who are to receive it. (c) That love of truth and of humanity and the daily manifestation of it are the noblest things in life.

5. *"The physician must study the body in whole and in part that he may understand its nature and know how it may be affected at different times and in different ways. Just so must the rhetorician study the soul that his efforts may be intelligent when he seeks to produce conviction in a soul."*

(a) *Compare with modern views on pedagogy.*

(b) *Apply principle to teaching.*

(a) Modern views of pedagogy set forth (1) the idea that the teacher should study the child mentally, morally and physically, and (2) the idea that at different times it may be affected in different ways.

(b) Hence, the teacher should, if possible, always put forth his efforts, in a certain line, at a time when they will produce the best effect. And he should know the child in his whole nature, so well, that he could apply his tact and skill so that no energy would be wasted, and the best of results be obtained.

READING.

1. *In general what relation does an author bear to his production?*

"The relation of an author to his composition is that of a creator to his creature, or a father to his child." (See page 67, Language Arts).

2. *So far as a literary product expresses facts or truths of the external world, does the author make or create them?*

He does not make or create facts or truths of the external world. They are already in existence. He may discover them and when he expresses them, he adds interest, life, or glory to them for the benefit or enjoyment of others.

3. *When Howell said, "Greek classics are rammed with life," what did he mean by the expression? In what sense is his statement true of all literature?*

(a) He meant that the Greek classics set forth the history, in all its lines or phases, of the people; their inner life and growth, as well as their outer manifestations in customs and institutions.

(b) His statement, in a certain sense, is necessarily true of all literature, for literature is a product of the mind, thinking in life lines—defeats, victories, joys, sorrows, fears, hopes,—and surrounded by life in all its manifold forms and phases.

4. *In what respect is the function of the reader different from that of the author?*

The author puts the *life* into his composition; it is his function to weave together the elements that will form a complete and consistent unfolding of a theme.

The reader's function is to take this ready made production and bring his mind into relation with it, and for the time being live, experience, and follow, the life put into the production by the author. (See pages 67-68.)

5. *"Reading, to be sure, is relative, not absolute. A child's reading of Shakespeare is one thing, Coleridge's quite another."*

(a) *Explain what is meant by these propositions.*

(b) *Show how Shakespeare's Julius Caesar could be used in the eighth year of the grades, the second year of the high school and in the second year of a college course, in the light of the above.*

(a) Not all persons are gifted with the same power of intellectual discernment or comprehension, in seeing, living, or interpreting. Hence reading is not absolute, but relative; its nature, extent or depth, depends upon the degree of *life* the reader is able to fathom.

(b) An eighth grade pupil would be interested in all the physical or concrete life, the more striking incidents—such as the quarrel of Brutus and Cassius, the dream of Caesar's wife, the murder of Caesar, the mourning of Anthony over Caesar's body, etc. A pupil in the second year of high school could appreciate the vanity of Brutus; the power of Cassius in managing him; the consummate tact of Anthony in swaying the people in whatever way he pleased, etc.

A college student could be depended upon to analyze the character of these persons; make comparisons; write themes upon "The Caesar of History," "The Caesar of Shakespeare," etc.; the proper scenic setting necessary; the death of Brutus, etc.

6. *"Knowledge is purely subjective;" in what sense is there knowledge in a book?*

"It is only in a secondary sense that there is knowledge in a book. What a book contains is not properly ideas, not properly even words, which are the signs of ideas, the external and visible *simulacra* of thought; and it is only when a mind like the mind of the author is brought into relation with it, that the book becomes instinct with meaning." (See pages 68 and 69.)

SCIENTIFIC TEMPERANCE.

1. *What is the effect of alcohol in small doses and in large doses as compared with the effect of strychnine?*

Alcohol in small doses acts as a temporary nervous and muscular stimulant; in large doses it speedily acts as a narcotic poison, or as a sedative.

Strychnine in small doses acts much like alcohol, only the patient is much more excitable; in large doses it produces pains, and shuddering somewhat like tetanic convulsions.

2. *What are the objections to the drinking of strong tea or coffee?*

Strong tea causes indigestion, palpitation of the heart, and persistent wakefulness. Strong coffee causes headache, wakefulness, indigestion, and constipation; it sometimes disturbs the rhythm of the heart, and causes palpitation, nervous anxiety, and muscular tremors.

3. *What effect has alcohol upon the absorption of sugar?*

This question is indefinite. In the stomach, alcohol in large doses retards the absorption of sugar; in small doses it increases the absorption of sugar.

4. *What becomes of the alcohol taken into the system?*

It soon finds its way into the blood current, and is eliminated by the lungs, the kidneys, and the skin. Whether it is all eliminated or not is a problem which is being investigated. None of it, so far as we know, is assimilated; hence it cannot be food.

Some authorities say that a portion of it is decomposed in the system. If this be true, the H of the alcohol will unite with the O in the system, and the system thereby be deprived of the proper amount of O needed to repair the waste.

5. *On what grounds has alcohol been administered to soldiers during long battles?*

That it would stimulate them to greater energy, endurance and courage.

6. *What can you say of alcohol, cocoa, and tea as beverages?*

Alcohol has no virtue whatever to entitle it to any notice as a beverage. Cocoa contains an appreciable amount of nutriment in the form of oil and gluten. Tea, to some persons, is a gentle stimulant and restorative to the nervous system; and would thereby, for a time, increase their power of enduring fatigue.

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BOOK TABLE.

THE editors of *The Ladies' Home Journal* offer five hundred dollars in prizes for photographs of the prettiest suburban houses. In this way the *Journal* will secure pictures of the most attractive summer homes in the country, and from these a selection will be made for publication. The great interest in the American home—inside and outside—is shown in this offer of big prizes.

ST. NICHOLAS for August, is the regular vacation number. It is fully equal to the best of this standard magazine for children. "A story of the Philippine Islands" called "Juanito and Jefe" is very suitable in the present history of the Spanish-American war. "Big Guns and Armor of our Navy" is also a timely article. *St. Nicholas* delights not only the boys and girls, but it has many fascinations for grown people also.

THE STUDENTS' STANDARD DICTIONARY; or the Students' Edition of the Standard Dictionary. New York: Funk & Wagnalls Company. 930 pp. 60,000 words. 1,225 illustrations. Price, \$2.00. net; \$2.32 by mail. This book contains every word that any one can have occasion to refer to ordinarily, and gives all that we need to know of the orthography, pronunciation, meaning, and etymology of more than 60,000 words and phrases, with synonyms and antonyms. There is also an appendix of proper names, foreign phrases, faulty diction, disputed pronunciations and abbreviations. The 1,125 pictorial illustrations are a great feature. There are few persons who have occasion to refer to more than 62,284 words, as authority in pronunciation it is as valuable as the larger works, the definitions are sufficient for general use, 450 synonyms are as many as most people ever care to consult, the 2,000 antonyms are a new and valuable feature, while 1,000 illustrations of the critically correct use of prepositions is a new and interesting aid.

BUSINESS NOTICES.

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INDIANA SCHOOL * JOURNAL

VOL. XLIII.

SEPTEMBER, 1898.

NUMBER 9.

DISCIPLINE AS RELATED TO CHARACTER. *

L. H. JONES, SUPERINTENDENT CLEVELAND, O., SCHOOLS.

The word discipline has a variety of possible meanings. It may name a process or the effect of a process. In the connection in which I shall use it, it refers both to the process of school government and to the effect produced in a pupil by the process of school government to which he is subjected, as distinct from the effect of instruction in the branches of learning comprising the course of study.

My theme leads me to study the relation of this discipline to character, the production of which is admittedly the highest end of education.

Education as a fact is always a realization, a realization of an ideal, whose potentiality turns into reality through a process of development. The idea controls the process of the realization by supplying the laws of the process. The child, as a child, has no character; it has only a possibility of character. The development of the child in accordance with the ideal which is involved in its nature will transform the child into the man or woman of character.

The acorn is the custodian of the ideal of an oak tree. Within it is a type force, impelling it to realization of the ideal it holds, and directing it more or less blindly in its uses of soil, sunshine, air and moisture, in the process of growth. With each returning

*Read at the Ohio Teachers' Association, June 30, 1898.

spring time the cycle of progress in self-realization is begun by the growing plant on a higher plane, with augmented power over its environment. The strong tap root gropes its way downward, fixing the plant more firmly in the soil, guarding against the angry blasts of winter sure to rage when spreading top shall challenge attack. The strong trunk pushes toward heaven, but strengthens itself against the storm its towering top invites.

The reaction of the ideal within upon the environment is the essential condition and fact of growth.

The self-activity of the plant, acting under the direction of its type force always masters and uses the environment. At last the acorn has come to its ideal state—it has realized itself—its highest self, in the oak tree with an oak-like character.

The elm seed passes through like stages and realizes its higher self in the graceful elm tree, with elm-like character. It is thus with everything. Only that which has life can develop. Only that which has self-activity can develop itself by using its environment. Only that which can develop itself can have character. Only that kind of self-activity which is capable of transforming itself into conscious self-direction can develop the noblest and worthiest character. Man alone of all the life upon the earth is thus created in the image of God, and capable not alone of developing in accordance with an ideal, but of changing and improving that ideal itself. The educational process seeks to take the child as unconscious self-activity, and through a knowledge of his nature and destiny, direct the process of self-realization until conscious power of self-direction has developed. When this is secured then the child is transformed into the man, character has developed, and the individual takes up his own further education setting his own ideals and pursuing his own methods of self-realization.

It is thus seen that the whole process of character production is one of development in accordance with an ideal which is bound up in the nature of developing being. If then discipline be any part of a developed character it must be a development and must accord with rather than be opposed to the nature of the being in which it is realized. It is upon this idea that I shall base my theory of discipline. The best discipline is that which results as natural development of the ideal within the nature of the child. Hence, the best school government is that which appeals to the

highest instincts of the child and leads him most fully to strive to develop himself in accordance with his highest nature. School government should direct only till self-direction has become possible, and then direction should seek not to oppose or thwart true development, but rather to turn back again into natural channels, powers and processes that have temporarily left the ideal.

I am well aware that this idea of discipline has not always been held by the traditional schoolmaster. Perhaps not all hold it even now. The strongest force in the universe is an expansive idea ; but some minds have not the strength of mental fiber to stand the strain of enlargement. Great and marvellous as have been the changes in methods of instruction within the last twenty-five years, greater still have been the changes in beliefs and customs of school government. A few teachers linger under the spell of the old ideas. It was once generally supposed that discipline could result only from something that was hard to do ; and that the best quality of it resulted from being compelled to do something in direct violation of all the natural desires, tendencies and laws of one's nature. It was thought necessary to break a boy's will in the process of teaching him obedience. It has been hard for the worshipers of this fetich to give way before the rising tide of enlightened thought and practice. One is reminded of the story which comes from Boston. In a meeting of ministers one of the younger and more progressive members read a paper in which he argued strongly against the belief in a personal devil. Discussion was very intense, and party feeling ran high. The progressives were in the majority and it really seemed toward the last as if there was little hope for a resurrection of his Satanic majesty. At last a venerable minister, laboring under poorly suppressed emotion, said : "We have fallen upon troublous times. We are being robbed of our precious and most cherished beliefs. I myself feel like exclaiming : 'They have taken away my Lord and I know not where they have laid him.' " Upon this pathetic appeal a writ of habeas corpus was at once issued and the evil one was restored in person to his dominion in Boston.

The enlightened view of discipline so far as it has prevailed, has exerted a beneficent influence upon school government itself. I remember well that good order in school was at first thought to be an end in itself, and school government was exerted to the end

of securing quiet for its own sake. In a second stage good order was considered a means to an end, and school government strove to secure quiet that the process of instruction and study might proceed. The highest conception regards good order as the merest incident in the series of steps by which the child learns self-government. How else could it be in a republic? Good order in a school is the outward sign of the disciplined will of the children composing the school. Disorder in a school is like an eruption on the face—disagreeable in itself but significant chiefly because it argues a poison in the blood. The quack doctor recommends lotions and various local applications, trying to remove the signs of the inner trouble. The intelligent physician gives a constitutional treatment to purify the blood, when the eruption disappears, since its cause has been removed. To what end does a ship foundering at sea display a sign of distress? Conceive yourself standing on the shore when suddenly you see a vessel drifting helplessly before the coming storm, with the flag of distress at the masthead. Your first look is toward the life-saving station. Before your first wish can take shape the life-boat glides into the water and eight trained oarsmen respond to the call of the captain.

You realize as never before what heroism means as these brave men bend to their oars with the strong steady stroke which sends the life-boat skimming over the rolling surges, like a stormy petrel bathing his breast in the foam of the angry waves. Your admiration grows as they near the luckless ship and you pray that they may not be too late.

They are along side the ill-fated vessel! See the captain spring up the side of the ship, scale the lofty mast, snatch the flag of distress and quickly slide down the rope to his life-boat! Watch these brave rowers bend again to the oars as they speed away from the vortex forming about the sinking ship. As they emerge from the immediate danger you see them slacken their speed; but as they near the shore again, weary and worn, you can but discern the look of exultation on each transfigured face. The captain holds his trophy aloft as he steps proudly ashore and engages in conversation with admiring friends who gather about him to congratulate him upon the outcome of the unequal contest, and to shower praises upon him and his brave men. The men put away the boat resume the routine order of daily life in a life-saving station. You are a little confused by what you have

seen, and perhaps dazed by the rapidity with which one phase of the tragedy has followed another. You move forward to have a word with the captain, when he is a little more at leisure. At first he does not deign to notice you. But presently he seems to see that you are in earnest, however ignorant you may be as to the function and methods of his profession. Turning toward you he manifests some impatience as you ask him why he did not bring off the men from the ship while the life-boat was within reach. At length he begins to understand you. A fine scorn curls his lips as he says, "The men!" Why, we had nothing to do with the men! We were after the flag; and we got it too. No flag of distress shall ever flaunt itself within sight of this life-saving station. We know our business. We have nothing to do with the drowning crew. It is the business of a life-saving station to tear down every flag of distress as soon as our brave boys can reach it!"

Sometimes when I have been visiting in one of the schools in which order is maintained for order's sake I have wondered what will become of the children; and my mind has wandered away to where the white bones of the unsaved crew lie under the sad sea waves.

As we have seen, discipline has to do with the will. It is primarily adapted to the culture and training of the will. There is a difference between an enlightened will and a trained will. School government must take into account these two elements and provide for both. School government should prepare the pupil to live ethically not alone in the school, but in all the institutions of civilized life. To do this, it must make him intelligent on these institutional relations and dispose him to observe these relations carefully. This is culture of the will.

School government must furnish opportunity for practice in cheerfully observing and practicing these ethical relations. This is training of the will. Culture and training are both necessary to the possession of character.

I wish to make clear the necessity for instruction in connection with training to constitute true discipline. I would not underrate the training side. I understand full well the value of habit, but I believe the blind side of habit has received already too much attention at the hands of teachers. It has so often been thought that discipline consists in so much repetition of right

action that a person has become an automaton rigidly fixed in a right course of action, and that this condition is a rightful end of education. I am willing to grant the worth of such training, especially to emphasize the safety there is to society in having the bulk of its citizens guarded against grave moral dangers through fixed habits of right action ; but I also wish to say that I do not regard this as by any means the highest state or condition into which a mind can be brought through proper discipline. I am sure that there is a rational element which ought to enter into all forms of conduct and which ought to regulate in a way all will action. I am not unmindful of the necessity for unquestioned obedience. I am only trying to say that irrational, blind unquestioning obedience is wrong. Unquestioning obedience is right because it is the most rational thing possible. It is the only basis on which organized society can for a moment stand. The obedience must be unquestioning because this is the only kind that will serve the ends of the social order. I have observed that army drill is an essential element in the making of a veteran as contrasted with the raw recruit ; but I have further observed that the raw recruit who is himself an intelligent man to begin with, develops into a superior form of veteran and still yields the same kind of implicit and instant obedience and does it with a calm courage and a strong conviction, backed up by true character which makes of him the ideal soldier.

The German army had been thoroughly drilled prior to the battle of Jena. They were intelligent, educated, disciplined in the higher sense, before Sedan.

The school offers the finest opportunity of all institutions to show to young people the ethical relationships of civilized life. It has the opportunity to make clear to them that all co-operation in the social order is dependent on having a leader, a properly constituted authority, one who shall decide and whose decision is absolute. It matters not that at one time this authority is vested in a given person and at another time in a different person. It is necessary, however, that in whatever person vested for the time being, implicit, instantaneous, unquestioning obedience be given to the authority. It is to be unquestioning obedience because this is the only reasonable thing. Savages might live otherwise, civilized people must maintain the social order. We are accused in this country of having little respect for authority. I quite

agree with the statement, but I trace it not to laxity of drill in school government, but to absolute lack of clear teaching in reference to the necessity of ethical relations in a social order. We need a generation of people who see with great clearness that they are parts of a great organized whole, that the integrity and possibility of the organism of the whole depends on the honesty and reliability of the component organs.

If we were to appeal to contemporaneous history, the events of the last few weeks would show us by dark contrasts the differences between enlightened people who have suddenly been placed in positions of responsibility, and illiterate, automatic soldiers who know nothing except to obey orders because the orders are given to them.

The American soldier of to-day is a superb illustration of the outgrowth in a land of republican institutions of the intelligent teachings in the public schools in the last fifteen or twenty years, in which these people have been prepared for life in a republic by having lived as children in an atmosphere of intelligence in which the will is regarded as the essential being and is trained rather than broken and deformed.

Such men as Dewey, Hobson and dozens of others whose names rush to the lips this moment, are the finest evidences of the efficiency of the training of the American schools that could be given. In the face of such examples, it is foolish to talk about the loss of the sense of obedience, of law and order and command. These men are able to give commands because first of all they have developed the habit of obeying commands. They have not lost their power to think or reason. They have rather seen the higher reason, that obedience is the only step by which success in organized co-operative life can be attained. I believe it to be the function of the public schools to develop such characters.

THE SOPHISTS.

M. ORESTES ROARK, A. B.

The name Sophist is applied to a certain class of teachers who had control of liberal education at Athens from about 450 to 350 B. C. The word means "man of wisdom." At the beginning of this period it was a title of honor applied to superior teachers, but toward the close it became a name of reproach and carried with it

all the odium that could be heaped upon an enemy by a shrewd mind like Socrates. It became a synonym for all that was bad in public teaching. The Sophists' good was certainly interred with their bones if we believe all is true the critics say concerning them. In forming an opinion, allowances must be made for exaggerations. After a brief review of their history, we will be better able to judge them.

The origin of Sophistry can be found in the result of previous philosophies and in the social and political need of the times.

The first attempts at explaining the existence of the world had failed. Thales, Anaximander and Anaximenes had sought to explain all existence by pointing out some physical substance as the foundation. In their research they were never troubled about the possibility of knowledge. Heraclitus held that everything was in a perpetual change, and consequently knowledge was uncertain.

The Eleatic philosophers said there was an unchanging being that was the object of knowledge while the multiplicity of things was the object of opinion. Others declared that what the senses revealed was only illusion. All these philosophies were in reality skeptical but it remained for the Sophists to push them to their limits. It was in perfect harmony with the existing philosophy for the Sophists to reason thus: Since everything is in motion, what seems to be true of things about us is only a subjective state—a sensation—hence, sensation is knowledge; truth is only relative; man is the measure of all things.

While the philosophers regarded themselves as seekers after truth, the Sophists declared man's inability to grasp it and withdrew from its contemplation. Although every opinion was true yet it was better for society that certain ones prevail. If there was no possibility of a universal truth, there was the possibility of persuasion and as they with one hand put philosophy away as vain and useless with the other they offered a substitute. This substitute was the instruction of the public teachers of the times.

The Persian Wars were over. The Greeks had risked all and won. The intellectual activity that follows every great successful national uprising was leading them on. Previous philosophies had weakened their faith in the established customs and their minds were anxious to grasp the new things, the changed conditions of the social and political world offered them. The times

were ripe for some one to direct these lately-freed minds. The Sophists came forward as leaders shrewd enough to understand the need, wise enough to supply it.

Among themselves the Sophists differed in theory and practice. Their instruction falls into four varieties—sophistries of culture, of disputation, of rhetoric, of politics.

The Sophists of culture had for their leaders Protagoras and Prodicus. As a substitute for the "truth" of the philosophers, they offered "excellence;" for the theory of the universe they offered an aptitude for civic life. They strove to free man not only from the narrowness of his views, but also from the narrowness of his means; not only from prejudice, but also from poverty. "To make men good citizens" was their motto. Their program of study at first was purely literary but it enabled them to meet the needs of the people. The lecture-rooms were crowded with admiring pupils who gladly filled the purses of their instructors for the services rendered.

Soon at Athens, the intellectual center of Greece, there was a host of Sophists. Some were pupils of Protagoras, others self-taught; some citizens, others strangers. There were two things quite noticeable in their teaching: *First*, Their independence of philosophy and *Second*, the extension of their subject matter so as to include scientific and technical subjects. To the subjects taught by Protagoras were added grammar, mythology, family history, archaeology, Homerology and the education of the youth. This formed an easy transition from the sophistry of culture to that of disputation.

The range of subjects taught had been gradually extended until Hippias, the leader of the Sophists of disputation, declared himself a teacher of all subjects. His purpose was not to give a thorough knowledge of the branches taught but to give skill in dealing with them in a popular way, i. e., to give skill in disputation. Valuable as was this accomplishment it had a prominent weakness. It emphasized victory to the neglect of truth. To gain the applause of men was its true aim. Ingenuous fallacy took the place of solid reasoning and since the pleasure-loving Athenian still had some regard for truth this form of sophistry was short-lived.

Almost coexistent with the sophistry of disputation, was that of rhetoric led by Gorgias. He made no pretense of teaching

civic virtue, but devoted himself to rhetoric and oratory. He sought to give skill in public discussion and debate. This soon developed into the fourth and last form—the sophistry of politics.

During the time which had elapsed since the founding of the Athenian democracy, the discussion of constitutional principles had been abnormally stimulated. The Peloponnesian wars had brought about the questions of state relations, of dissenting parties, of bond and free, of Greek and Barbarian—all of which were subjects of lively discussions in the legislative assemblies. Since the Sophists claimed to prepare young Athenians for public life, it was natural that some of them should direct their teaching to political questions. The fact that each one was his own counsel before the courts, made their form of instruction very popular.

In all this we see, that the primary aim of the Sophists was to provide such a liberal education as was demanded by the times. In doing this, they exerted a lasting influence on the study of language, noting the meaning and proper use of words. Political history had its beginning here through a comparison of the institutions of the different states. Rhetoric and oratory were carefully studied, and Demosthenes, the world's greatest orator, stands out as a product of the teachings of the Sophists. Not only were these lines of thought stimulated and benefited, but even philosophy itself, the bitterest enemy of the Sophists, was greatly aided by them. The fallacies of previous philosophies were exposed, and the way prepared for the great systems of Plato and Aristotle, which have been, and are the study and delight of the thinking world.

This movement had, or seemed to have a mischievous effect on conduct, because of the practice in oratory and disputation. Whether in exposition or debate, the Sophists were accused of seeking victory instead of truth. This charge soon grew into the accusation that they were teaching immoral, as well as unsocial doctrines. Those who were opposed to the new order of things, and longed for the simplicity of their fathers, looked with fear on these "corruptors of youth," as they termed them. If a glowing body of stone were shining in the heavens, instead of the all-seeing eye of Helios, what would become of religion, the state and morals? If the gods did not exist, who would guard oaths, avenge wrongs, uphold civil society? Truly, the gods were growing fainter and fainter, and the long white locks and

feeble steps of Pan, told that his end was drawing near, but the world was not destined to die with them. The way was opening for a more permanent hope and a more abiding truth than had been found in the gods.

The doctrine of the Sophists might have been wrong, but it was the natural consequence of the times. It might have been immoral, but the standard of morals changes with time. When the Sophists are properly seen in relation to the condition of their times, when it is remembered that without them, there could have been no Socrates, no Phillipics of Demosthenes, no Republic of Plato, then it will be that justice will be given them.

Max, Ind.

SCHOOL ORGANIZATION.*

ARNOLD TOMPKINS.

The school is an organization by which the educational process is carried on. Viewed as carrying on the educative process, the school itself becomes a process—"a series returning upon itself."

The school exists first in *idea*, and then in *fact*. The school in idea has three elements: (1) the Purpose to satisfy a need; (2) the idea that Instruction would meet the need; (3) the idea that Organization and Management of the school condition instruction. Each of these elements in the idea, school conditions the succeeding in the order named.

The school in fact reverses the above—each conditioning the succeeding in a reverse order. The idea, in taking its concrete form, exists first as School Organization and Management; second, as Instruction; third, as a realized Purpose. The first in idea is the last in reality; and the last in idea is the first in reality—the idea originating the series returning upon itself in its realization. Hence the outline: (1) Purpose, (2) Instruction, (3) Organization and Management—(4) Organization and Management, (5) Instruction, (6) Purpose. The first three exist in idea, and become reversed in the order of their realization. So with any organism; it is a series returning upon itself.

* This article has been reprinted from the September, 1889, SCHOOL JOURNAL, at the request of many teachers. It is the article referred to in the Township Outlines for the preliminary institute.

The idea, Purpose, is the moving principle in the organism. Purpose necessitates the second and third elements in the idea ; and then concretes and uses them as means of realizing itself. In this it appears that the beginning is the end of an organism.

Thus the school presents three phases for discussion, each twofold—ideal and real. Logical discussion requires the order of Purpose, Instruction and Organization and Management ; but viewed in the order of realizing the end sought, these must be discussed in a reverse order—a chronological order. In theory, the first order is required ; but in practice, the second order is necessitated. In the concrete process of teaching, the teacher begins with Organization and Management as the condition for instruction, and gives Instruction as a means of realizing the End or Purpose. The problem that most immediately concerns the teacher, and which before the opening of next school term must receive a great deal of attention preparatory to the beginning of school work, is that of School Organization.

The law of School Organization is ascertained when we have perceived that it conditions Instruction. To organize a school is to adjust its parts so that the conditions of instruction will be secured. In the process of Instruction, teacher and pupil join in the same act. The teacher thinks a thought, and stimulates the pupil to think the same thought. The act is common ; and the minds are one—a unity of minds. The two minds thus joined form an organism of minds, because the individual minds co-operate to one end—that of instructing the one taught. The child becomes one of the agents in educating itself. Organization is the condition of this organic unity of the two minds. Management maintains the organization in the process of Instruction. Organization has reference to the school as fixed in its adjustment of parts ; Management, as continually readjusting its parts in the process of Instruction. These are only different phases of the same concrete object—the fixed and the moving—each phase having for its purpose the unity of mind of the teacher and the pupil in the act of Instruction. The law of organization may, therefore, be thus :—

The parts of the school must be so adjusted as to be a perfect condition to the unity of mind between teacher and pupil.

The larger phase of the school, which includes its establishment through constituting the officers, is not the immediate con-

cern of the teacher, and may here be admitted. Besides, a school can exist without them, the teacher and pupil being the only parts that can not be thought away without destroying the idea school. These two are to be adjusted to each other in the organism; and this adjustment is the immediate work of the teacher.

The two phases of Organization are Classification and Gradation.

Classification has reference to the number of pupils that can join with the teacher in the same mental act; Gradation to the movement of the class through the course of instruction, and includes the relation of one class to another. A class in school, as any other class, is composed of a number of individuals thought as one on the ground of a common attribute. Several apples are red, and they are thought as one so far as the color is concerned. Pupils in a class have one mark in common—each joins with the teacher in the same act. They do not co-operate as do teacher and pupil; but each bears the same relation to the teacher; thus making a class unit rather than an organic one.

The nature of the class reveals the law of school classification:—

All pupils in the class should be able to join the teacher in the same mental act.

This law determines: (1) the number and the kind of pupils to put in a class, and (2) the conditions under which they work.

Whatever the number, all must think the same thought; and the number may be as large as the teacher can hold to the same thought. The more nearly equal in ability and attainment the larger may be the class. The mere number itself seems to be limited only by the convenient reach of eye and ear, and the untrained attention of pupils.

This law determines another fact of much importance. A school is not always thought to be classified if a pupil has not the even number of studies with his class, or if he should recite a subject with another class. Perfect classification may require such seeming want of classification.

While classification requires class unity at a given moment in the act of teaching, gradation requires unity of thought in each individual of the class in successive moments; i. e., through the course of instruction. A school is truly graded when each pupil follows the continuity of ideas determined by the natural

growth of his mind. A graded school is a school, moving over a graded system of ideas. The first step in the work of gradation is to arrange the elements of a subject into a naturally developing series in the mind of the pupil. Certain ideas of the earth are adapted to the child in the first year of his course, and, because of the acquired ideas in the first year and increased ability, others are adapted to him in the second year; and so on to the close of his high school course. Such an arrangement of ideas in all the subjects—an arrangement from the small center at the beginning of the school course out to the circumference at the close of the course—constitutes a Course of Study. The development of a course of study is, therefore, the first step in grading a school.

Gradation is often confused with Uniformity—the confusion of the external with the internal. When the schools of a township, county, or state are said to be graded, it is usually meant that they are uniform. That two schools in the same county should have the same classification, books, etc., is not essential to gradation. In fact, such uniformity may defeat gradation. Uniformity will perhaps result from gradation; but no educational reason can be given for the external uniformity of two schools, or for the corresponding successive classes of different years in the same school. The class, because the individual is to combine in the teaching act, must be uniform as to text, time and manner of preparation of lessons, etc.; but that another teacher should at the same time be moving a class over the same subject is not required by the law of organization; and may be prevented by that law. Economical reasons may require uniformity of text in a state, but educational reasons do not require it. A system of graded schools in which classes are promoted and combined into one, requires uniformity in time and in the matter gone over. Uniformity is a merit, but it must not interfere with gradation. The manifestation must not be mistaken for the spirit manifested. “The letter killeth, but the spirit maketh alive.” Nothing, to-day, aside from poor instruction so much oppresses the free life out of the school as the iron frame of uniformity. Many city schools, and those praised for their perfect gradation, oppress the growth of students by unnatural conformation to external requirements. The criticism on the graded school system in the point of forcing pupils to the same

level, is a just accusation against uniformity, but does not touch true gradation. We need the caution : Never permit uniformity to interfere with the free unfolding of the individual ; i. e., only in so far as consistent with class instruction.

THE SCHOOL-ROOM.

THE RECITATION.—II.

W, F. L. SANDERS, SUPERINTENDENT OF CONNERSVILLE SCHOOLS.

In most recitations, to secure the best and most valuable results, the pupil reciting should stand. The pupil rises, takes a certain position, gives his answer, and takes his seat. In each of these acts there is a chance for a kind, skilful, influential teacher to give the pupil a training of inestimable practical value in self-control of body and mind. All movements of the body should be promptly and properly done ; no one of them should be suggestive of laziness, lounging, or lack of interest. While standing, the body should have an erect position and should be free from support of desk or other object. The answer should be given in good English, and in a tone loud enough to be conveniently heard.

The extent to which the foregoing characteristics of an ideal recitation are made habitual depends upon the powers of the teacher. If his character is not forceful in many ways, he will find the road to success in training the pupil in proper actions and attitudes, so rough and thorny, that, in all likelihood, after a few trials, he will give it up in despair and conclude that it is not a matter of very much importance, anyhow.

But it *is*. He is acquiring a habit of ease and culture in the management of his body, a matter of vital importance to him in later years, when he will desire to "live, move and have his being" in the company of cultured men and women.

The objects of the recitation are :

First. To hear the pupils recite, or tell what they know of the lesson. Most assuredly this should be the central purpose of the recitation. A lesson has been assigned and the pupils have put in their time of preparation. Now comes the test of the fitness of the teacher's assignment, and the worth or genuineness

of the pupil's preparation. The teacher has here the opportunity to test the fitness, in many ways, of the work he assigned to be prepared—the amount, the nature, the difficulty attending its preparation, and the manner of its preparation. If the recitation has not been a very successful one, the teacher must make no mistake in finding out exactly where the fault lies, with the assignment, with the preparation, or with both.

The teacher may have assigned too much, or may have asked that it be prepared in a way not familiar to the pupils, or the degree of difficulty attending its preparation may not have been given due consideration. On the other hand, the pupils, or a part of them, may have neglected to do their duty; their responses may not measure up to what they are able to do, or might have done. What is the best thing to do in this emergency?

Let the teacher express his deep regret at their negligence; push through the lesson, to let them see the amount they should have known; call attention to the seriousness and effect of progress delayed; gather up in review all the fragments possible that were recited; appeal to the pupils not to let such a failure happen again; note carefully any fault of his own that has contributed to the fruitless result; and see to it, in many ways, that such does not occur again.

Part of the teacher's work in every recitation should be such a close and critical questioning on the points of the lesson, such an intense and earnest anxiety and demand in his countenance for what he has a right to expect from the pupils, that they will be impelled to the thorough preparation of the lesson every day.

The earnest, skilful teacher, by the way he manages the recitation, promotes studiousness on the part of his pupils.

Second. To fix firmly correct ideas and to remove wrong ideas.

In the preparation of the lesson pupils will frequently get wrong ideas, or interpret wrongly portions of the text. During the recitation these things will become manifest, and the teacher should, by questions, explanations and illustrations, remove all the wrong impressions, and place firmly in their stead correct ideas and interpretations.

Third. To give or develop ideas, or information, not in the lesson or text, but closely related to the contents of the lesson.

Here is a field of work which is exceedingly important, but

which we must enter very carefully, for it takes time, and none of it must be touched at the sacrifice of the assigned lesson.

A few minutes, at least, of most recitations can be given to ideas, or information, kindred or closely related to the points or topics of the lesson.

The broader knowledge and experience of the teacher enable him, now and then, to add briefly and concisely ideas that increase the interest, aid the memory, sharpen the perception, or deepen the reflection. A teacher who can do this wisely adds much to his value or usefulness; but one who "loses his head" and uses the time of the recitation in explaining or relating things neither pertinent nor valuable, is shamefully wasting the children's golden opportunities.

Fourth. To improve the power of expression and the character of the English used.

The pupil needs careful guidance in the use of good English, so that his words, phrases and sentences may be well chosen and arranged. In the recitation much of the language used by the pupils is inarticulate and broken; the sentences are incomplete, poorly connected and badly constructed; and the emphasis or tone of voice frequently indicates lack of confidence on the part of the pupil. No matter, whether or not we believe that every recitation should be a language lesson; the conditions inevitably force us to make it so. To permit bad English to go uncorrected is to foster a habit, which, in a short time, is so firmly fixed, that for the rest of life it clings to one's speech as a shameful sign of neglect, ignorance or laziness.

Brief but frequent drills will improve the articulation; writing a pupil's incomplete or awkward sentences on the board, and submitting them to the class for investigation or criticism, will push the pupils to a greater watchfulness in expressing themselves. Calling attention to the convenient manner by which simple statements are connected by certain words and phrases, will so put the pupils in the line of the process, that they can, with a little practice, make neat connections in their own speech or writing.

The pupil's tone of voice, or manner of expression, should be carefully watched and trained in naturalness, deliberation and confidence.

Many a pupil in reciting, uses a forced tone quite out of the

line of his natural conversation, as will be seen if you break into his recitation with some question that puts him into another channel of thought, where, for the moment, he uses his natural speech. Calling his attention to his change of tone and the pleasurable fitness of his natural speech, will be a beginning of a highly important training.

Another very objectionable habit is closing the recitation, especially if it is a short one, with an interrogative tone of voice, as if the pupil is not sure that his answer is correct; for his *tone* plainly asks, "Am I right?" And this kind of tone accompanies an answer about which the pupil can have no doubt whatever as to its correctness.

After such an answer, the teacher may ask, "Are you sure you are right?" The pupil will very likely answer in the affirmative. The teacher then should say, "Please, then, give the answer with confidence, and do not by your tone of voice ask me whether you are right or not." The pupil is generally able to make the change at once.

Another pupil, we will call her Mary, gives an answer as if it had an interrogation point after it. The teacher remarks to the class, "Mary is not sure that her answer is correct,"—but Mary *is* sure, and quickly perceiving the teacher's hint and desire, she gives her answer again, closing it with a tone of confidence.

Tact and perseverance on the part of the teacher will soon remove the evil; and it is of vital importance that the pupils be trained into an easy control of the voice in the recitation, as well as in other lines where speech is necessary.

Let every teacher remember that his best opportunity for making himself useful, and for training his pupils in knowledge and character, lies in the recitation.

READING IN THE GRAMMAR GRADES.

WILLIAM L. BALENTINE, PH. D., PRINCIPAL, BENSON SCHOOL,
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We have an abundance of method, of illustration and of theory on the subject of primary reading. Educational journals are full of it, and doubtless, it is all needed; but very little is said about reading in the upper grades. The common impression appears to be that by the time pupils get into the grammar school,

they will need but little assistance from the teacher ; that having acquired the power to help themselves in the lower grades in the matter of reading, but little remains to be done for them.

It appears to the writer that this is a great mistake, and that there is room for improvement in the methods of teaching and training the older and farther advanced pupils to obtain from the choice selections of prose and poetry in our readers the thoughts of the authors, and to see and enjoy the beauty and power of their diction.

I think there is a good deal of skimming done here. I have no reference now to the elocutionary part of the work, but simply to the proper conception and appreciation of the thought. Listen to the average pupil read a pregnant stanza or paragraph from the fourth or fifth reader ; unless he is told by the teacher or printer just where to put the emphasis, he reads it mechanically, thus betraying his ignorance of the meaning of the author. There is nothing in the emphasis, modulation, rate or pitch, nothing in the eye or countenance of the reader to indicate that the operation is anything but an operation of the jaw.

One reason appears to be that less preparation is given to the reading lesson than to any other. The pupil is allowed to infer that he needs no special preparation in this branch. He knows that he must prepare on the others, or fail, but the reading lesson—anybody can get safely through that without more labor than looking up a definition or two, and probably using the dictionary for the proper pronunciation of a few words, though the latter task is usually unnecessary, for he can use the dictionary during the reading lesson. As to searching for the consecutive thoughts of the author, as revealed in the stanzas or paragraphs, searching the figures, looking up the references and the illustrations that adorn and strengthen the thought of the author—the very thing that rescues the exercise from hum-drum—that scarcely ever dawns upon the pupil.

But when this does dawn upon a thoughtful boy or girl, the reading lesson is something different from what it was. It is a new study, a new revelation and an inspiration that permeates his efforts in every other branch of study.

NEED OF PREPARATION OF THE READING LESSON.

Is it important that much attention be given to the proper

preparation of the advanced reading lesson? In my judgment, it is essential. I do not think much preparation is needed to *pass the examination*. The power to interpret an author is necessary to enable the pupil to study every lesson easily and profitably. It transforms what would otherwise be mental drudgery into a comparatively pleasant task. It confers upon the pupil power to help himself and gives him the key to intelligent mental work. Without this culture, the pupil may be a hard worker, but he will always be a bungler.

What can the teacher do to train her pupils in preparing the reading lesson properly? Nearly everything depends upon the teacher. If she has no taste for such work, she ought to cultivate it; for the want of it is a bad sign. If she has the ability and culture necessary, as nearly all have, she can impart this power to her pupils by the proper method and spirit.

See how the arithmetic is explained. The teacher does not rest with her explanations; the pupil with chalk or pencil is expected to show upon the board or paper whether he comprehends the problem or not, and the teacher holds on until it is comprehended. Again, observe how carefully the grammar lesson is analyzed; the sentence divided and subdivided down to the very word, and the relation of each word to the others pointed out. Thus it is with geography and history, and it is right that these branches should be taught in this way. Anything less would not be acceptable.

READING LESSONS SUBORDINATE TO OTHER WORK.

But who ever saw a teacher or a pupil step to the board and outline a reading lesson, tracing the author's thought from beginning to end? It strikes the writer that more attention should be given to the reading lesson in the grammar grades.

In keeping with this thought, an illustration was given recently at a teachers' meeting. The lesson was "The Chambered Nautilus," by Holmes. The poem was first read, and all the new or difficult words and references pointed out. Then began the critical examination of the poem. The question was raised as to the main thought in the first stanza. This required a good deal of scrutiny, and after a half dozen different notions had been given, each expressed in a different way, a conclusion was arrived at. In this way, the whole poem was gone over, and although it

was old to almost all the teachers, in about twenty minutes all had a better grasp of the poem than they had ever had before. The conclusion reached was that the first stanza had for its leading thought the *living* nautilus; the second, the *dead* nautilus; the third, its method of growth; the fourth, the thanks of the poet for the impressive lesson taught, which is contained in the fifth stanza.

Then came the most difficult part of the lesson, to observe and point out the imagery and the poetical conceits of the author in the elaboration of the main thoughts.

In the case of poetry, pupils could not, of course, attempt to be poetical, but they could be called upon to say in prose much of what had been clothed in poetic expression.

The benefit of the exercise is not so much in knowing the consecutive thoughts in the selection as in seeking for them and expressing them in an original way. This critical examination of an extract or a whole poem would serve to some extent as a preventive to desultory reading, and I am sure it is an aid to composition.—*The Teacher*.

THE CHAMBERED NAUTILUS.*

THE LIKENESS BETWEEN THE HUMAN SOUL AND THE NAUTILUS.

In the first stanza we have a description of the nautilus in his shell.

The poet imagines that his shell is a ship of pearl, with purple sails and it glides on the enchanted gulfs. It is summer and these gulfs are very beautiful because they have coral reefs above the surface of the water, and mermaids rise and sun their hair. The siren, or little nymph that sings so sweetly that sailors and even the nautilus are charmed and drawn by the sweet tones nearer the enchanted place, dwells here.

Now I think that the poet meant to give us a thought in this poem that could apply to our souls as well as to the nautilus, for if he gave but a description of the nautilus and put nothing more into it, it would live but a short time. As it is, with a deeper meaning behind it, many read it because it shows a comparison known throughout the world.

* This paper was read at a graduating exercise at the close of the common school course. It is a sample of the work County Superintendent J. M. Sullins is having done in Tippecanoe County.

I think we have little ships of pearl in the form of fanciful pleasures and ideals. We enter into them with just such earnestness as does the ship of the nautilus venture on the sunny waters of the gulf. Then we have little fancies that lead us on, and we, anticipating pleasure, follow them just as the sailors must follow the sweet voice of the siren. These pleasures to be, are just as charming to us as the sweet voice is to the sailors. We go on following our sirens until finally our pearly ship of hope and anticipation is wrecked just as the shell or ship of the nautilus is worn out and wrecked.

We have a dim and rather vague idea of perfection, and this idea has, heretofore, dwelt in our ship of hope, as the nautilus has dwelt in his old shell. As we develop this idea and broaden it into a high ideal, we use the best part of our past, to aid in building our better ideal and in making our souls more like Christ. Here we have a difference between our souls and the nautilus. When the nautilus builds his shell, he uses the old one only as a home until the new one is completed, but as I have said, we use the best part of our past and can not entirely throw it away. Even the unkind things we would sometimes like to leave, cling closest to us.

Year after year we work, or at least we should work, to improve our ideal and become more perfect. The nautilus works just as hard to complete his beautiful shell and each year it is larger and more beautiful. Then, when he has finished his work, he creeps into his new home and knows nothing more about the old one.

We can not rest as does the nautilus. When we have reached one ideal, we are not satisfied, but go on, striving to reach a higher one.

It seems that the nautilus is giving us a message from heaven, if we would only understand it. The poet explains this message in the last stanza. We are to go on building our ideals, making each one nobler and better in every way than the last one. We should leave the lowest part of our past but take the best with us to aid in building our ideal temple. As a matter of fact our ideals are not perfect, for if they were, we would be free. Yes, free from sin, ignorance and so many other things to which we are now slaves.

Nevertheless, it is a comforting thought that we *can* broaden

our dim idea of perfection if we keep on striving to climb upward, making each block in our ideal better than the last.

Finally, when we have attained the highest, and being as near like Christ as it is possible for us to be, we shall hear the beautiful words, "Well done." Then we shall feel amply rewarded for all the trials we have gone through in this life.

HARRIETTE DOBBINS, *Age, 14.*

EMMA BALDWIN, *Teacher.*

PRIMARY DEPARTMENT.

*This department is conducted by Miss Anna Brochhausen, Critic Teacher
in the Indianapolis Schools.*

PRIMARY GEOGRAPHY.

Dr. Dewey has defined education as "the process of the reconstruction, or reconstitution, of experience, giving it a more socialized value through the medium of increased individual efficiency." This tendency to make prominent the importance of man's social obligations is evident in all recent books, or articles, on education. Consequently the problem which the educator now tries to solve is:—In what way can a strong character be developed who will give himself to the work of improving his fellow men and thus advance civilization?

Each subject of the curriculum is to serve in the accomplishment of this remote end. Though remote, this end governs the method of presentation. Probably in no other subject is the change in manner of presentation more noticeable than in the subject of geography. But a generation ago, the developing mind was wearied with the memorizing of the names of places and their location on the maps, little or no attention being paid to the fact that the growth of a city is not an accident but chiefly dependent on its physical environment.

Geography is a chief means in the accomplishment of this social end in education. Its immediate aim is to aid the mind in forming a correct image of the world. There are various ways of considering the subject, but for the present purpose the earth as the abode of man is the view taken. As his home, the physiog-

raphy of the land necessarily forms an important feature. Observation, the memory of form, and the imagination are chiefly exercised in forming a true mental picture of the surface of the earth. Since the memory of form and imagination are dependent upon observation, the work of the primary school is to fill the mind of the child with true and definite concepts of his immediate physical environment. The ideas of the child upon entering school are necessarily vague. Up to this time, he has been becoming familiar with this world in which he lives in a very general way. He has succeeded in appreciating to some degree the order in what seemed once a chaos. The mind has not yet lost its wondering curiosity in the living, growing, ever changing world. Could the primary teacher ask for a more favorable condition of mind for instruction? She needs but to classify the materials in his environment and then proceed to lead him to see more accurately. Charles Kingsley has said: "He is a thoroughly good naturalist who knows his own parish thoroughly." So in geography the true conception of the world rests upon the fundamental ideas gained in the immediate surroundings of the individual. This environment may be classified as social and geographical. "It is the interaction of these two environments that constitute the true value of geography as a school study." (Spencer Trotter.)

It is unnatural for the normal, active child to be satisfied with the close, indoor life imposed upon him in some schools. Answer the demands of nature! Make use of this active, inquisitive attitude of mind! Lead the child out into nature! Short trips should occupy a prominent place in primary work. The main thing is to lead this interest present in the child, toward the formation of mental pictures which the imagination will use later to image a country far, far away. Has the wonderful change on the surface of a common, after a heavy shower been pointed out to the children? Is not the general law of the world's drainage system there in miniature? The pictures of a coast line with its bays and inlets, its islands and peninsulas is represented there, better than by all wordy descriptions or sand table representations. The amount of material here ready for observation, can scarcely be described in this article. The air, with its change in temperature, the change in the direction of the wind; the moisture in the air in the form of fog, clouds, etc., afford constant material

for instruction. The report of a lesson suggested by a snow storm, will be in next month's JOURNAL.

The fauna and flora naturally form an essential feature in the primary study of geography. The observation of the changes which the seasons bring with them, not only in the fauna and flora, but in the length of day and night, the length of shadow, etc., will in time awaken the question. Why is this so? The simple statement: "Where I visited last summer, the violets bloom much later than here," made by the teacher on a spring walk; or going out from the picture of the world on some wintry morning, to the life of the Eskimo in that climate where it is always cold, will call forth many questions, will prepare the child for the understanding later of the different conditions of the people of different climates. The simple life led by the less civilized people is thus given the primary pupil. This is really the beginning of history. But history and geography have never been separated, and so the beginning of each should be made together.

Presenting this simple life will naturally call forth comparisons with their surrounding social conditions. Why should it not be so? The child of modern civilization is as familiar with the fact that there are buildings devoted to different purposes, as he is with the fact that the sun shines, the rain falls, the flowers bloom. But is he conscious of the social interaction? Let him visit the farm with its open meadow land, its large fields of wheat and corn, its garden of vegetables, its cattle, horses, etc., then the mill to see the grain ground into flour; the market place where the farmer transfers the produce into the hands of the consumer; a woolen mill where the wool of the sheep is made into blankets, etc. Thus he is led to appreciate the interdependence of man. Will he, or will he not, through this knowledge be better able to understand international intercourse? He sees how the need of man has given rise to certain occupations. Through the knowledge of how much man's intelligence has thus far accomplished, he will be better able to find the sphere in life, where he can best serve in the advancement of civilization.

Thus the primary teacher in making use of the immediate environment of the child, lays a foundation of topographical forms, introduces various phases of the social environment, and prepares the mind for the understanding of the relations of these two environments, which form the key-note to the work in the higher grades.

READING LESSON.—II.

In the first article on reading, it was stated that the difficulty of a lesson may consist in the many new words introduced, or in the form of expression. Such lessons, it was suggested, should be studied with the class. The greatest development comes to the child, from the lesson in which the teacher leads him to see all that there is to be gained from a story. It gives him the power to analyze literature later, to pass a judgment upon its true value. Unquestionably, we should bring to the child the best that is to be had. "The best is only good enough." As early as the second year some poems may be studied with a class, from which the child not only gets enjoyment, but a fuller deeper meaning is put into the life about him. Granted that there is a difficulty in every lesson studied with a class, it is always best to give the children a little time to look ahead and thus master some things for themselves. The teacher should be prepared to ask a question, to which the sentence studied will give the answer, thus bringing about good expression; or a question, the answer to which may be found in the sentence, though the exact words of the sentence is not the answer desired.

Knowing that the teachers of Indiana all use the Indiana series of readers, I have chosen a lesson from the Indiana Second Reader for the report this month. Previous to the study of the lesson the teacher had been encouraging the children to form mental pictures of situations introduced in stories at Opening Exercises and language lessons. Everyone will see the importance of this imaging power in reading. Before asking the children to describe the picture in a story given for silent reading, the following lesson was taken up with the class.

WHAT THE BOYS WOULD BE. PAGE 65.

The teacher stated the aim of the lesson thus: In reading this story this morning I want you to make the home picture and be ready to describe it to me when we are through. What are you to be able to do when we are through?

P.—We are to describe this home picture.

T.—About what is the story?

P.—What the boys would be.

T.—Each of you has, no doubt, thought about what you would be. What are you going to be, Ethel?

Ethel.—I am going to be a teacher.

T.—Ray?

Ray.—I am going to be a policeman. (It is well to bring in a little freedom of this kind. It soon shows the teacher the thoughtful children in the class. As a child-study she verifies her previous supposition of the child's love of power and showy uniforms. Judgment must be exercised in the time taken from the lesson for this purpose. It is best to ask those children with whom she has had little intercourse previous to the lesson.)

T.—Look through the first sentence. What time of day was it?

P.—It was evening.

T.—What season of the year was it?

P.—It was winter.

T.—Why do you think so?

P.—The boys were sitting before the fire.

T.—What kind of a fire do you think it was?

P.—It was an open grate fire.

T.—Which words make you think so?

P.—Looking into the fire. We can't see into the fire when it is in a stove.

T.—Have you thought on what these children were sitting?

P.—They were sitting on the floor.

T.—Probably. We will see. Describe the room.

P.—“The room was small and bare, and everything in it was old.”

T.—Any thought there which you wish to bring out more strongly?

P.—The floor had no carpet on it, and there were only wooden chairs.

T.—See if the next sentence will help you furnish the room a little more.

A pupil read the second sentence.

T.—What kind of a table have you pictured this to be?

P.—A small round table without a cover. Another pupil said: “I think it must have been just the kitchen table which they used to eat off of, too; for I think this family was poor.”

T.—We are glad to hear from you. I wish we had time to see how each picture is growing. Is there something in this sentence which would change your idea about the season?

P.—It must have been a cool evening in early spring for the little boy has a top.

T.—What is the mother doing?

P.—She is working.

T.—At what do you think she is working? One pupil thought she was mending a blue calico waist for one of the boys. All seemed to think that she was mending something which belonged to the boys. The interest which the child takes in picture building was here manifested and again later when the positions of the boys were determined.

T.—Now we will see what the boys wish to be.

The class studied the third paragraph after which one of the children was called upon to read.

T.—Why did he wish to be a doctor?

After the class had studied, another pupil read paragraph No. 4.

T.—What did James now wish to know?

P.—“What will you be Frank?” said James.

T.—Look through the next sentence. (The class studied.) Had Frank been thinking along this line?

P.—No, ma'am. Because it says he thought of his clothes after James asked the question.

T.—What does Frank say he will be?

A pupil read the seventh paragraph.

T.—But we have been forgetting another part of our picture. How has this talk made the mother feel? (8th paragraph.)

T.—Do you see why it would make her feel so?

The general opinion of the class was that she was sorry she was so poor that she could not give the boys what they wanted.

T.—We have not heard from all the boys yet. Whose turn is it now, and what causes him to make his wish? (9th and 10th paragraphs.)

Here a child suggested that the season must be later than spring, since there were roses; but it was finally decided that it must have been a rose from the florist, since it seldom happens that the evenings are cold enough to need a fire in the house after the time of the roses.

T.—Now who speaks and to whom? (11th paragraph.)

T.—The first part of our story told us where Harry was?

P.—He was standing by his mother's chair with a top.

T.—Now you ought to be able to tell me the position of the boys about the fire.

P.—James must have been lying in front of the fire with his back towards his mother, his head resting on his arm so that he almost faced Frank. Frank was sitting to his right with his legs crossed. John was on the left, half lounging.

T.—Why do you place the boys so?

P.—Because James spoke to Frank first, and John seemed to see the rose on the table so easily.

T.—That is well done. Now let us see what Harry has to tell us. (12th and 13th paragraphs.)

T.—What did the boys do? (14th paragraph.)

T.—What do the boys now think? (15th paragraph.)

The question, What do you think about it? called forth quite a little discussion. Though one pupil said he thought Harry had chosen best, the children seemed to feel that the boys could be what they wished to be and still remember their mother. Yet they thought they could be more careful in the little things they did and said.

T.—Why did the tears come to the mother's eyes?

P.—Because the boys seemed to have forgotten her.

T.—What was it that you were to be able to do at the close of this lesson?

P.—Describe our picture of the home.

T.—You may do so.

P.—I see a small room with a bare floor. The fire place is on that side, (pointing to the west.) They burn wood. On the right side of the fire place is a small box with some wood in it. There are six wooden chairs in the room set against the walls, one here, (west side), one in that corner, (north-west), one on that side, (north),—there is a door there too—one here, (east), and one there, (south). The other the mother is sitting upon, by the table in the middle of the room. I see three boys in the picture, as Gerald says he sees them.

The teacher did not press the child for any further description.

T.—If this story had not said evening, in what time of the day would you have put it?

P.—I would have put it in the evening, because after supper is about the only time poor people have for such talks.

T.—Now with this picture in mind, let us hear Addie read the whole story.

The children sat up with books in hand, and followed the re-reading with evident interest.

LEND A HAND.

(This department is conducted by Mrs. E. E. Olcott.)

*"Look up and not down,
Look forward and not back,
Look out and not in;
Lend a hand."*

AUDUBON.—IV.

Audubon's courage seems hardly less than sheer foolhardiness. How could he expect to publish a work costing \$100,000 when, through business incapacity, he had lost the fortune inherited from his father, had failed in every commercial enterprise he undertook, and had not been able to provide his small family with the bare necessities of life? It seems that all who knew him, his wife only excepted, discouraged the venture. Indeed, we are told, "his friends did not hesitate to call him 'lunatic,' 'fool,' his wife alone encouraged him." Everybody said he would fail, and they had excellent reasons for that opinion. Nevertheless he *succeeded*.

We so often see allusions to Audubon's famous "Birds of America," and so few of us have ever seen it—for the ten-volume form in which it and his "quadrupeds" are issued, for private and public libraries, cost from \$150 to \$200—that the following extract is interesting: "In 1827 Audubon issued the prospectus of his grand work, 'The Birds of America,' and with all the audacity of genius entered upon the colossal undertaking which was to cost one hundred thousand dollars and occupy a period of eight years. He had not the means of paying for the first number, was in a strange country, and without a single subscriber. In size, the work was to be double elephant folio, the figures life-size, exquisitely colored, and engraved upon the finest paper. The plates numbered four hundred and forty-eight and contained over a thousand life-sized figures. The first complete set of plates, now in existence, is unbound and was sold by a celebrated bookseller in London, in 1893, for the sum of four thousand dollars. The

bound copies are now worth, according to condition, from \$1,500 to \$2,500 a set."

Audubon had a host of distinguished and influential friends, among them the Earl of Merton, the Duke of Northumberland, Sir Walter Scott, and Professor Wilson, known in literature as Christopher North. The "American Backwoodsman" settled in London, "where he could publish his work more quickly and cheaply, and through the kindness of the President of the Royal Academy he was enabled to sell his paintings, and thus obtain means to pay his engravers."

With indomitable courage Audubon traveled through Great Britain canvassing for the "Birds." He met with great success among the aristocracy, even the king became a subscriber. For a time all was smooth sailing, but Mrs. Bradford tells us: "Audubon was destined to pass long years of alternate hope and despair, and ceaseless effort before his heart's desire was realized. During the first four years he lost fifty-six subscribers, representing the sum of fifty-six thousand dollars. So to advance his fortunes the naturalist went to Paris. And now behold the "American Backwoodsman" exhibiting his portfolio in the French Academy of Sciences, and listening to the eulogies of Baron Cuvier, who pronounced his work 'the most magnificent monument which has yet been erected to ornithology,' and said: 'When it is completed we shall be obliged to acknowledge that America, in magnificence of execution, has far surpassed the Old World.' The great painter Gerard called him 'the King of Ornithological Painters,' and said: 'We are all children in France. Who could have expected such things from the woods of America?'"

Audubon now numbered among his subscribers the King of France and other royal and titled personages. The Czar of Russia presented him with a snuff-box set with diamonds as a mark of his imperial appreciation. Connected with this gift is an amusing anecdote. The news of the Czar's mark of esteem finally reached the ears of some of Audubon's old neighbors, possibly at Henderson, Ky., where the unappreciative had called him a shiftless, chattering Frenchman, and one old farmer, in whose woods Audubon had spent many "idle" days, exclaimed: "I don't see what the Czar gave that lazy fellow a present for? He didn't do a thing but watch birds all day long and draw their pictures. Don't see why he didn't give it to me; but that's just like them emperors."

However, Audubon was not "without honor in his own country." He returned several times to the United States while prosecuting his work in Europe, and was most cordially received. Such men as Washington Irving and Daniel Webster were his warm friends, and he was invited to dine with President Jackson at the White House. Mrs. Audubon spent several years in England with her husband, and his two sons assisted him in completing his work.

At last, after twelve years of toil and anxiety, through which he was sustained by unquenchable hope, "The Birds of America" was finished and was received with admiration by the world. In this year Audubon returned to America to spend the rest of his days.

The English edition was too costly to be remunerative. Therefore Audubon issued in New York a smaller and cheaper edition, "so as to place the work within the reach of every lover of nature and science." This met with a ready sale, and "with the proceeds he bought a lovely home on the Hudson, which he called 'Minniesland,' for his wife, whose pet name was Minnie."

Here he spent many happy, prosperous years, continuing his studies and completing his second great work, "The Quadrupeds of America." Here he entertained many distinguished and admiring friends. "It is pleasant to picture our artist in the mellow sunset of life, within the charmed circle of home, singing to his grandchildren the gay little French songs of his youth, or wandering among his picturesque grounds by the riverside, where the deer and the elk roamed free, unstartled at his approach, and listening to the music of his beloved birds." Here he passed away, June 29, 1851. He and both of his sons rest in Trinity Church Cemetery, within sight of their beloved Minniesland. Over their resting place a beautiful Runic cross, twenty feet high, was erected and unveiled in 1893.

In New Orleans the Audubon Monument Association has been organized for the purpose of erecting in Audubon Park "a noble statue in bronze of the Great Naturalist of Louisiana, as he was in life, in hunter's dress, with gun and dog by his side." But a monument greater than human hands can erect is the grand mountain, standing with snow-crested head among the lofty peaks of the Rockies, and named in his honor, Mount Audubon.

NOTE.—Mrs. Mary Fluker Bradford is President of the Audubon Monu-

ment Association, and has published, at her own expense, a pretty little book entitled "Audubon," the proceeds from the sale of which she donates to the society. It is attractively bound and entertainingly written; from it this sketch has been largely drawn. It may be obtained by sending one dollar to Mrs Mary Fluker Bradford, New Orleans, La.

TALKS WITH INEXPERIENCED TEACHERS.

READING.

My Dear Young Friends :

We left the B class busy at their desk work, drawing leaf stems; suppose we call them now for the second recitation in reading. They have had other recitations, as in phonic and language work; they have had rest exercises and preparatory work in writing, but they come now to continue the reading lesson about the maple leaf.

You must previously have decided upon one of two courses, both of which are used by good teachers, *i. e.*, you must continue to give other and new whole sentences, presented just as the first were, without reference to the parts; or you may now begin to call attention to some of the words composing the sentences given, and recombine these into partly new sentences by varying the arrangement and adding a few new words. Probably the latter plan will be easier for you, so we will use it now.

If you can spare the space it would be well to keep the original sentences written in a certain place on the board for reference, till they are thoroughly mastered. You will find the children's eyes turning to these, comparing and contrasting them with the new, but kindred work.

In this second lesson, after they have re-read the sentences, you may hold up a leaf and lead the class to pronounce its name. Then write "leaf" on the board, telling the class that the written word says leaf as truly as the spoken word. Then ask :

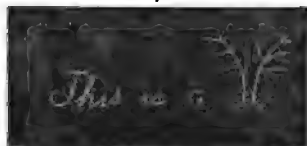
"Who can find *leaf* in our stories?"

Write the sentences several times and let the children find leaf in each.

Simply mention that "a" is *a*. Do not dwell on it, and there is little probability that in reading, the pupils will emphasize it or call it *uh*. There is no objection to presenting it in connection with leaf, writing "a leaf" instead of the single noun leaf. But in

the very next sentence "a" precedes maple, instead of leaf, so it seems rather better to present them singly. In similar manner write the phrase, "This is," and after telling them what it says, let them find in the sentences.

Now make some new combinations by substituting pictures, no matter how crude, for words, as :



A straight line may represent a leaf-stem, a line with a large dot on the end a *pin*, and a circle stand for a gold ring.

You thus have five sentences in all, as : This is a leaf, a maple leaf, a leaf stem, a pin, and a gold ring. They are to read these at a glance, and expressively. This may close the recitation, or if there is time, present the word maple. It may be given as the other words were, or the sentences may be written thus :

This is a leaf.

This is a maple leaf.

And the children discover the word maple by comparison.

Little use can be made of the word maple in recombinations, as it does not lend itself readily to pictures, tree being about the only available one. The desk work, after the lesson, may be to draw maple trees, a straight line representing the trunk and oblique ones the branches.

For the next lesson it may be well to give some wholly new sentences.

Give a child a leaf, let him stand before the class and answer your questions :

What kind of leaf have you?"

"I have an oak leaf," he replies.

"Roy, take the leaf and tell its color and size."

"It is a little, green leaf," says Roy.

Write these sentences on the blackboard, perhaps calling one May's story and the other Roy's, to lend interest. Proceed as with the others, first making the class familiar with the whole sentences, then some or all of the separate words and then recombine with pictures into different sentences. You now have :

This is maple leaf.
 I have oak little.
 It green an, a

Which should be used in word drills, and recombined into a score of sentences and phrases, as—

| | |
|----------------------|-----------------|
| I have a maple leaf. | A maple. |
| It is green. | An oak. |
| This is an oak leaf. | A little maple. |
| It is little. | A green oak. |

Proceed in this way, frequently presenting entirely new whole sentences, separating, recombining, and reviewing all.

Continue to give lessons both in script and print on the black-board and in the books.

A GEOGRAPHICAL, HISTORICAL, LANGUAGE EXERCISE.

a. Write statements about the following :

| | | |
|---------|--------------------|------------------|
| Dewey | Phillipine Islands | Cadiz |
| Sampson | Porto Rico | Tampa |
| Schley | Ladrone Islands | Manila |
| Cervera | Key West | Santiago de Cuba |

b. Name as many United States men of war as you can.

As many Spanish men of war.

What battle was fought on May Day this year?

What glorious news came to the Americans on the Fourth of July?

GEOGRAPHICAL NICKNAMES.

Write sentences telling the nicknames of each of the following states and of its inhabitants. Several states have two and one has three nicknames, and the inhabitants of several have two, also.

| | | |
|---------------|----------------------|----------------|
| 1 Wisconsin | 1 Bear State | I Creoles |
| 2 Michigan | 2 Golden State | II Tadpoles |
| 3 Illinois | 3 Hawkeye State | III Wolverines |
| 4 Indiana | 4 Prairie State | IV Gophers |
| 5 Ohio | 5 Garden of the West | V Badgers |
| 6 Kentucky | 6 Sunflower State | VI Suckers |
| 7 Tennessee | 7 Sucker State | VII Whelps |
| 8 Mississippi | 8 Hoosier State | VIII Hawkeyes |

| | | | |
|---------------|---------------------------|------|----------------|
| 9 Louisiana | 9 Creole State | IX | Buckeyes |
| 10 Texas | 10 Dark and Bloody Ground | X | Hoosiers |
| 11 Arkansas | 11 Lake State | XI | Gold hunters |
| 12 Iowa | 12 Corncracker State | XII | Jayhawkers |
| 13 California | 13 Wolverine State | XIII | Corncrackers |
| 14 Kansas | 14 Buckeye State | XIV | Beet heads |
| | 15 Bayou State | XV | Toothpicks |
| | 16 Big Bend State | XVI | Cotton mannies |
| | 17 Lone Star State | XVII | Cree-Owls |
| | 18 Badger State | | |

For the benefit of the busy teacher, the following key is given to reveal the right nicknames :

| | | |
|--------------------|---------------------|-------------------|
| Wisconsin, 18, V | Tenn., 16, VII, XVI | Ark., 1, IV, XV |
| Mich., 11, 13, III | Miss., 15, II | Iowa, 3, VIII |
| Ill., 4, 5, 7, VI | La., 9, I, XVII | California, 2, XI |
| Ohio, 14, IX | Texas, 17, XIV | Kansas, 5, 6, XII |
| Ky., 10, 12, XIII | | |

USE AND PUNCTUATION OF "O" AND "OH."

"O" and *oh* should be distinguished. *O* is used before a noun or pronoun denoting the person spoken to, and is not directly followed by any mark of punctuation ; *oh* is an interjection denoting pleasure, pain, surprise, or fear ; as—When, *O* my countrymen, will you resent this treachery ?

"Oh, what a fearful plunge !" *Tarbell's Lessons in Language.*

"*O* is the interjection used with a noun in direct address. The point of exclamation always follows the whole expression ; as, 'To thee, *O* God !' *Oh* ! is used in the expression of joy, pain, and other emotions, and the point may follow it, as, 'Oh ! I have hurt my finger.' Or the whole expression may be made exclamatory ; as, 'Oh ! how beautiful this sunset is !' *O* is frequently found in literature where *oh* would be preferable."—*Mead's English Language and Its Grammar.*

She gathers up her robes of green and gold,
The fair, sweet summer ; and across the land
We see her go, with outward reaching hand.

EDITORIAL.

Shorter and shorter now the twilight clips
The days as through the sunset gates they crowd,
And Summer from her golden collar slips
And strays through stubble-fields, and moans aloud,
Save when by fits the warmer air deceives,
And stealing hopeful to some sheltered bower,
She lies on pillows of the yellow leaves,
And tries the old times over for an hour.

—Alice Cary.

THE FIRST DAY OF SCHOOL.

The teacher of large experience will declare, that the success of the year depends very much on what is done during the first days. Special effort should be made therefore to do the best things in the wisest way. To the young and inexperienced teacher, who enters upon professional work for the first time, the *first day is most important*. A teacher who can succeed in making a good impression the first morning, will find that fact greatly to his advantage. On the contrary, if the first impression is bad, he will have to struggle against this for weeks, if it is ever overcome.

In order to make this much to-be-desired good impression, the teacher must be ready at every point to take hold of his work, and show that he is master of the situation.

To begin with, he should see to it, that his school-room is in good condition and ready for the reception of the school. In the country districts this can not be left entirely to the trustee. In the next place the teacher should in some way learn the classification of the school, and know the point to which each class has advanced. The old classification should be adopted and any necessary changes made later.

The opening exercises should be short and carefully planned. There should be no hesitation, and the teacher ought not to be compelled to ask any questions about matters concerning which he could by any possibility have gained information beforehand.

Let it be remembered that the most important thing is to *put the school to work as soon as possible*. Lessons should be assigned without reference to the books, showing that the teacher is familiar with the former organization. When all former classes have been given work which can be done in a few minutes, then the new pupils can be given attention. Let them be classified after a few questions, with the distinct understanding that the assignments are temporary and may be changed later.

Do not waste time in enrolling names, but begin recitations as soon as possible. Let the first recitations be short and other work assigned. In this way all can be put to work in a few minutes *and kept to work*, and this is the secret of success. The pupils will thus see, that the teacher is master of the situation, and will respect him from the start.

"TAKE THIS LESSON OVER AGAIN."

Perhaps it is going too far to say that a teacher should never say to a class "take this lesson over again," but certainly such an expression should seldom be used. The frequent necessity for the re-assignment of work is a severe criticism on the teacher.

If work has not been reasonably well done by a class one of two things is true: Either the lesson was not wisely assigned, or the pupils have not used ordinary diligence in the preparation of the lesson; and either is a criticism on the teacher. When a lesson is a reasonable one, and the class has made faithful preparation, and it is still not fully mastered, instead of re-assigning it, it is much better to drop it and take up the same principle in a new form.

A review in arithmetic should never consist in solving the old problems over again, but in solving new problems involving the same points. A review in reading should never consist in reading the book through again, but in reading through another book of the same grade.

"Doing work over again" is always drudgery. Reviews and re-reviews are of course necessary, but they should consist in reviews of principles with new matter, and not in reviews of old forms.

A teacher may sometimes say to an individual, "that work is carelessly done, I cannot accept it," but this ought not to occur frequently. The above is laid down as a general principle, and not a hard and fast rule.

VACATION SCHOOL AT INDIANAPOLIS.

The experiment of the vacation school has met with such success that we believe it has come to stay and be a permanent part of our educational system. During the past summer all our large cities successfully carried on vacation schools. One in Indianapo is under the supervision of Miss Anna Brochhausen, who conducts the Primary Department of this JOURNAL, is especially worthy of mention. It was supported by private contributions, the school board granting the use of one of the school buildings. The enrollment reached nearly 100, and boys and girls between the ages of ten and fourteen were received. Five teachers were employed besides Miss Brochhausen, the superintendent. The work carried on was in the following lines: Drawing, music, nature-work, sewing, cooking, manual-training.

Great freedom was allowed the children, strict school rules were not observed and yet the control was perfect. The school term lasted but five weeks, and on Friday of each week the school was taken on some excursion. One of these excursions was to Camp Mount, where a special drill was engaged in for their benefit; another excursion was to Greenwood to see Pope's artistic dairy, a third was made to a model farm in the vicinity of the city so that the children, accustomed to city ways and city life might note what a busy man the farmer is during the hot days of summer. The children were not ready for the close of school when the term of five weeks had expired. This fact is certainly proof that the work was successful.

MUSIC TEACHING IN INSTITUTES.

Music teachers as a rule make a mistake in their institute work. They take it for granted that the teachers know *nothing* about the subject, so they begin at the beginning; and they do this every year. Every year they explain (?) the scale, and the staff, and that the half-steps occur between three and four, and seven and eight, &c., &c., &c.

Occasionally a music teacher comes into an institute who takes it for granted that the teachers know these elements of music, and devotes himself to teaching the teachers *how to teach the subject*.

New methods of presenting the subject to pupils are always acceptable.

GOOD FOR INDIANA.

As a rule Indiana has stood low in point of attendance upon the National Educational Association. The total enrollment at the Washington meeting was 9,384. This number will probably be increased by a thousand "active" members not in attendance.

Secretary Shepard has published a list of the states, giving the attendance of each. In this Indiana stands *fourth*, with an enrollment of 534. The states ahead of us are Ohio, 1213; Illinois, 1181; and Missouri, 762. Pennsylvania follows close with 507. No other state reached 400. Every state and territory was represented except Idaho and Nebraska.

BOOK EVALUATIONS.

CONDUCTED BY CHARITY DYE.

[NOTE.—This department is not a library bulletin, but a teacher's exchange through which the experience of one will reach a number of others.]

(Communications addressed to 1122 Broadway, Indianapolis.)

HISTORY CONTINUED.

Parkman, Francis, Jr. Hurst & Company, New York. *The Oregon Trail*. One volume, 300 pages. Suitable for boys and girls from ten to eighteen. Author's purpose to sketch the manners and characters of the Indians in their primitive state—their wild and picturesque life—and incidentally to correct erroneous impressions in the public mind created concerning these wild people by the fancy of poets and novelists. The language is simple, the style clear but vigorous, the descriptions accurate. Altogether this is perhaps the best book extant on the subject of which it treats.

August 11, 1898.

HORACE ELLIS.

Mr. Ellis, Superintendent of West Lafayette schools, accompanied the above evaluation with a note in which he says: "It occurs to me that the evaluation department might serve a peculiar pecuniary value to our teachers, if they would but avail themselves of its information and it may be that they do, in this that they need not expend money injudiciously for books." Mr. Ellis has the thanks of the department for his evaluation and other readers of his contribution are asked to follow his example.

Lyall, Edna. D. Appleton & Co., New York. 1890. 365 pages. *A Hardy Norseman*. Suitable for boys and girls from twelve to eighteen, in grade 7 and upward. Subject, honor and true principle in business. Locality, Norway and New York. Period, the 19th century. Information about home life and natural scenery in Norway. Language, good. Moral tendency, very good. A good story to read while studying Norway.

March 7, 1898.

PRUDENCE LEWIS.

Jewett, Sarah Orne. Putnam Sons, N. Y. 1893. *Story of the Normans*. (Story of the Nations.) Suitable for both boys and girls from twelve to eighteen years in grades 7 to 12. Subject, chiefly in relation to the conquest of England. Gives a clear idea of the Normans and the changes wrought in the political, ecclesiastical and social life of England. Language, simple and clear. Illustrations, good. Maps. Gives an account of William the Conqueror and wife, and of the Bayeux tapestry. Has genealogical tables of Norman rulers.

D. RANNEY.

Morris, Charles, *editor*. Philadelphia. Lippincott. 1888. *Half Hours With American History*. Suitable for both boys and girls from 12 to 18 years in grades 7 to 12. It is a selection of events of special interest, from the period before Columbus to the close of the civil war. Events are presented in chronological succession and divided into historical eras. Language, concise. Illustrated. Moral tendency, good. Colonial and Independent America are both treated.

April 15, 1898.

A READER.

Harper & Brothers, Publishers. 1892. 12 volumes. 774 pages. *Stories From English History for Young Americans*. Suitable in grades 7 to 8. Period, B. C. 55 to 1887. It introduces important personages and facts. Language, simple. Moral tendency, good. A good child's history of England.

Curry, George & Rolfe, W. J., *eds.*, New York. Charles E. Merrill & Co. *Merrill's English History*. Suitable for both boys and girls from twelve to eighteen years of age. Begins with Ancient Britain and is brought down to Queen Victoria's reign, giving the great events of each ruler's reign, and men of the time. Is correct in the statement of historical facts. Language, clear. Illustrations, none. Maps. Genealogical tables. Moral tendency, good. Serviceable both as a text-book for young pupils and as supplementary reading.

Richardson, Abbie Sage. Houghton, Mifflin & Co., Boston. 1871. *Stories From Old English Poetry*. Suitable for boys and girls from twelve to eighteen, grades 7 to 12. Stories from Chaucer, Spenser, Shakespeare, with biographical notices. Locality Greece, England, Italy. Familiarizes reader with the plays and stories of the early dramatists and poets. Language, choice. No illustrations. Moral tendency to teach a love for the standard stories and the poets who wrote them.

August 17, 1898.

CHARITY DYE.

TOWNSHIP INSTITUTE OUTLINES.

SECOND INSTITUTE.

PLATO'S REPUBLIC.

I. BOOK II, FROM 368 TO END OF BOOK IV.

- a. See pp. 8 to 24, inclusive, of "Studies in Plato's Republic," or "The Republic of Plato," pp. 8 to 24, inclusive.
- b. Supplementary Suggestions.
 - (1) Education is treated as an essential part or means in the social whole.
 - a. Show this in the "Republic," and in "Social Elements."
 - b. The advantage to the teacher of such a view?

In our introductory article we tried to say that the *text* of the Republic should be *studied most carefully*, that it should be studied with eyes open to *all* that it may suggest whether of a distinctively pedagogical character or not, and that a knowledge of the personality and teaching of Socrates would be of material aid in understanding Plato's thought. We also suggested that the Republic be read through. We assume now that in addition to this first reading of the entire dialogue, the first four books have been re-read and studied carefully. In the present paper we hope to give the main outline and plan of the dialogue together with a few brief statements concerning some points of general significance.

There are two kinds of teachers from whom one may learn good pedagogy. The one is the scientific analyst who has studied the workings of the human mind, the subject matter to be learned, and in general, the problems of education, so carefully that he can predict with great certainty how a given set of conscious phenomena ought to be, must be, and is—except when perchance it turns out to be different. Such a teacher patiently works out and classifies principles and laws of education and his equally patient followers will find great profit in working over and applying these carefully elaborated laws. It is a slow process, so slow that little heat is generated and the warmth and glow of life is likely to be wanting. But it is a way to true and valuable results, it is the modern scientific way, and the work of such a teacher is worth while. The other kind of teacher does not analyze. He teaches how to teach by just teaching. He does not exploit the law but he is aglow with life and he and his followers alike forget the law in the abundance of life. The laws and principles are there but not as members of a bony skeleton. Rather are they the flesh and blood of vigorous vitality. It is great good fortune for a sympathetic student to have studied under such a teacher. He learns the subject matter under consideration, whatever it may be, and he learns practical pedagogy as well. He drinks it in as it were from a living fountain. As a teacher of pedagogy Plato belongs to the second class. The more carefully we study the thing he is trying to teach, the closer we get to the soul of the man himself, the more pedagogical truth will we obtain.

The Republic contains in its most specific form Plato's teaching on the subject of education. Great thinker, philosopher and artist that he was, the world would have been the loser had he failed to discuss this important subject. But the Republic is much more than a treatise on education. True to his vocation as a philosopher Plato considers first the more fundamental question, What is the highest ideal and the ultimate end of life? This is the real theme of the dialogue to which all other subjects, the subject of education included, are subsidiary. The Republic is a discussion not of education merely, but of justice conceived as the end, the attainment of which is the *summum bonum*, the thing supremely worth while in life. Justice and goodness are really the same for Plato. The just state and the good state, the just man and the good man, are practically equivalent. "Justice" as an ethical and social term corresponds to "the good" as a metaphysical term. As the idea of the good is the highest idea, including all others when metaphysically considered, so justice (united with wisdom) is the highest virtue, including all others, e. g., courage and temperance, when ethically considered.

A state of justice is the ideal condition both for the state and for the individual. Socrates discusses the nature and rewards of justice in the state first for the methodological reason that it is easier to see writ large first that which is afterward to appear in smaller characters. But in this connection one should not overlook the fact that for Socrates and Plato and Aristotle, that is, for the Greeks as a nation, the state was of more importance than the individual. This was true not only in the ideal republic of Plato, but it was actually true in the Greek states of that time. Children were born, trained and often destroyed for the sake of the state. It was left for the Galilean Teacher to give to the world the modern conception of the value of the individual.

Justice, both for the state and for the individual, is proposed as the end. What are the means to its attainment? Anything that will contribute to an answer to this question may now have a legitimate place in the discussion. First, Plato introduces current views of religion and morality as given in the conversation of Socrates with Cephalus, Polemarchus, Thrasymachus, Glaucon and Adeimantus. There follows to the end of book VII a somewhat mixed discussion concerning the good (or just) state, the good man and education. The treatment of the good state and the good man is designed to give us a knowledge of the nature of the ideal state and the ideal man, in both of which justice reigns supreme. Then comes the specific discussion of education. The ideal state must be controlled by ideal men, men of the highest type. Philosophers, Plato calls them. How shall these men be trained? Leaving the further consideration of this question for the next article let us now revert to some other topics of general significance.

The doctrine of ideas lies at the center of Plato's philosophy and no one can hope to understand him throughout unless he has an adequate conception of this doctrine. Dr. Bryan's brief but luminous discussion of this subject (pages 65-67 Introduction) should be studied with fasting and prayer, if necessary, until its significance becomes apparent. Let the student not be discouraged if the first half dozen readings do not bring the desired result.

Like a picture puzzle, simple enough when seen, it may yet be hard to see. An understanding of this doctrine enables one to see the import of "idea" or "form" as the essence behind all appearance, and of the three grades of knowledge, viz.: "opinion," as a knowledge of individual objects, the child's or the savage's way of looking at things; "understanding," as a knowledge of sciences and the principles underlying them, e. g., mathematics and chemistry; and true knowledge or "dialectic," as a knowledge of the world of ideas lying behind the world of appearance.

"The good" is a term that has a double, and, consequently, sometimes an ambiguous meaning. Used in a metaphysical sense it refers to the highest, the all-inclusive idea in the realm of ideas, that is God. Used adjectively and in an ethical sense it is equivalent to "just" and denotes that state of being or better of activity, in which all the parts of the object to which it is applied, are functioning in harmonious accord. The tremendous significance of the term when applied to man is a subject we must reserve for future consideration. The meaning of the term should not be forgotten.

The most casual observer cannot fail to note the great resemblance of the Republic to modern sociological discussions. For example, chapter VII of Henderson's "Social Elements" is little more than Plato's discussion modernized. Many specific and general illustrations of the same fact might be cited. The science of sociology, without ignoring the Christian principle of the supreme worth of the individual, is emphasizing that other Christian principle that a man lives not to himself alone, but is part and parcel of the society in which he moves. It is a principle which possesses large significance for the future of society and no educator can afford to be without the light and stimulus which it gives.

The meaning of the term "justice" as used in the Republic should not be confused with the modern more restricted use of the word as indicating fairness of dealing between man and man. In Plato's own words the attempt to define the nature of justice is an "attempt to determine the way of a man's life, * * * * * the attempt to determine the way in which life may be passed by each one of us to the greatest advantage." In the State "justice will be admitted to be the having and doing what is a man's own and belongs to him." In the case of the individual "the just man does not permit the several elements within him to meddle with one another, or any of them to do the work of others, but he sets in order his own inner life and is his own master and at peace with himself."

To recapitulate. 1. Plato's pedagogy is of the vital kind. 2. The Republic is a discussion of justice proposed as the *summum bonum* the supremely worthwhile end in the life of both individual and State. 3. "Good" and "just" are in general equivalent terms. 4. For the Greeks the State was all-important. 5. Education is considered as a means to the attainment of justice. 6. The doctrine of ideas is central. 7. "Good" is a term of double meaning. 8. Modern Sociology agrees with Plato in regarding education as a means to the larger end. 9. Plato's use of the term "justice" is specific and technical.

J. F. BROWN.

SOCIAL ELEMENTS.

I. THE SOCIAL WORLD IN MINIATURE. CH. IV.

The purpose of Chapter IV is to show how the Family is the "Social World in Miniature." In this little social world within the home the teacher should see how and to what degree the different functions of social institutions are represented and performed.

1. The home represents :

a. *A physical abiding place.*

Consider how physical conditions affect its life.

b. *The organization of industry.*

Consider how domestic economy is the root of all economy. Political economy, like charity, begins at home.

c. *The organization of education.*

Consider the family as the source of the school.

d. *The organization of government.*

Consider the home—the domestic republic—as the mainstay of the State.

Show how it does, in miniature, the work of the State. To what extent the family produces general society, and to what extent it is controlled and influenced by society.

e. *The home as the altar of religion.*

The religious home points to the church. It will thus be seen that the family—the home—is the institution preservative of all institutions.

2. Consider how the family may be the agency both of conservation and progress. Pp. 70-71.

3. The perils of the family. Pp. 71-76.

a. Pauper and criminal marriages.

b. The debasement of marriage to the basis of a private contract.

c. Easy and shameful divorce.

"There are cases where it would be gross wrong to continue in this relation." P. 72.

Do you accept this statement? Should society provide for separation but not for divorce?

d. Industrial poverty and distress.

Can the family perform its function while in physical want? Can the mother perform the two offices of home keeper and bread winner?

4. Note the signs of promise and improvement. Pp. 76-77.

II. INSTITUTIONS AUXILIARY TO THE FAMILY. CH. V.

1. The school; police systems; boards of health; systems of food inspection; means of water supply; community protection against flood and fire; forestry cultivation; disposal of garbage; building inspection; park provision and improvement; courts for the protection of rights of person and property; social means of communication and transportation; social standards of weights and measures of time and value.

Explain and illustrate each of these. Can you add to the list of auxiliary institutions and their functions?

III. THE SOCIAL ARTS. CH. VI.

1. Note the classification of the useful arts. (p. 96.)
2. To what extent and with what benefit can these arts be considered in the school room? (pp. 97-99.)
3. Illustrate and explain the function of *Language* as a social art.
4. The means of the application of the art of language in our "Social System of Publicity." (pp. 102-107.)
 - a. Conversation.
 - b. The public assembly.
 - c. The official document.
 - d. Laws.

- e. The newspaper and magazine.
- f. Books and libraries.

A brief essay of five or seven minutes, might be offered to the Institute on "The Newspaper; Its Evils and its Benefits."

- 5. The Fine Arts and How They Minister to our Social Needs. (pp. 109-112).

The teacher must love the good, the true, the beautiful. The useful arts are good; the books give us much that is true; the fine arts lead us to the beautiful. Is there anything of higher importance in a teacher's life than that which leads to appreciation of noble sentiments, of beautiful images, of high ideals to the cultivation of æsthetic and artistic taste. Such is the function of the fine arts. Let the teacher consider what he can do to cultivate in children love and observation of the beautiful to avoid mere materialism.

Point out the special need of art culture in America. Note the suggestions on p. 401.

CHAPTER I.

Society consists of persons living in various modes of association which arise from human nature reacting upon the physical conditions of life. These *modes of association* we call the *institutions of society*. Man finds that there are certain activities which he must perform in order to live. He must rear children, obtain knowledge, get into right relation to God and fellowman, earn a livelihood, rest from his labors, protect his property, and so on. He finds that these activities are more economically and thoroughly accomplished by co-operating with his fellow-man. Hence man co-operates with woman to form the home. He co-operates with his neighbors in employing a specialist to teach his children; to perform his adorations to Deity. He co-operates in establishment of an agency for protection of property and life, and in providing his business expenses. Thus the institutions of home, school, church, industry, government, and polite society are co-operative organizations of people for the more satisfactory performance of the activities necessary to human life—modes of association. An excellent exercise for the reader, and for pupils in the grammar grades, consists in preparing a list of all the activities engaged in by the people and classifying them as provided for by the agencies of home, school, industry, etc.

There are three great forces underlying and giving direction to institutions; *Physical necessity*, *Perception of the value of co-operation*, and the *Impulse of Association*. These forces enter into the organization and working of every institution, but to an extent that varies with the degree of spirituality involved in its activities.

Social forms and activities are *constantly changing*. Change is written on the face of all things. Our children will live under conditions which we know nothing of, just as our world of affairs would be a land of mystery to the Pilgrim Fathers. The interest of education, then, must be in the future. We must "act in the living present" but it must be with a view to better things in the future. To promote progress is the paramount duty of the present. Procedure from old to new is the law of social as of universal growth. The degree of intelligence and purpose with which progress is sought is the measure of the advancement of a people. Knowledge of the forces, tendencies, organizations of society to-day is the foundation of progress. This knowledge may be obtained either by a study of the

growth of "the people" (*Historical method*), or by a study of the agencies, activities and tendencies perceptible in the world of affairs about us (*The Empirical method.*)

CHAPTER II.

Thought, memory and feeling are physical phenomena but they have a physical basis—physical limitations. In like manner, society rests upon and is influenced by a *physical basis*. The character and extent of the influence of nature upon social development may be clearly seen by thinking of :

First. The difference of people's living in different climates in point of energy and temperament ;

Second. How the industry of the Esquimaux, Africans and Americans is determined by the character and abundance of the native food supply ;

Third. How the sense of modesty is affected by the need of clothing ;

Fourth. How the location of the United States has affected our international policy, and how the wealth of our national resources has influenced our methods of taxation and ideas of commerce.

A large method of similar studies will occur to the reader, which will serve equally well to clear up her own ideas and in presenting the subject to the pupils.

The laws of biology are also laws of sociology. While man is more than an animal, yet he is an animal, and subject to all the laws of animal life. A right conception of the more fundamental of these laws is necessary to the understanding of the forms at work in society.

First. The Law of Diminishing Returns means that the cultivation of a farm will increase its productivity in proportion to the degree of cultivation up to a certain point beyond which the yield can not be increased perceptibly, at least only in a constantly diminishing proportion to the labor expended. Nature places a limit to the possibilities of cultivation. The same law applies to education, and thus doubly influences social progress. Illustrations of this law may be had in the study of the development of a farm, a garden, in the improvement of methods of mining and refining ores, in the use of machinery, raising of stock, training of speed horses, and expenditures for education.

Second. The Doctrine of Malthus holds that the population tends to increase more rapidly than do the means of subsistence and that if the tendency were unchecked, in spite of the most important methods of cultivation, the race would soon come to the verge of starvation. It means that in all fully settled countries the population is kept very close to the point of starvation. Illustrations are found in the conditions existing in China, India, and among the peasants in some portions of Russia.

Third. The Law of Variation means that each new individual is born with a difference in power or temperament. No two individuals or peoples are alike. "Each man or woman makes a new start." It is the same with the new generation. But the tendency to variation in the individual or the community is limited by

Fourth. The Law of Heredity—the tendency to conserve and transmit the common, fixed characteristics. This tendency varies with the age of

the family or community. Thus there arises a continual conflict between the tendencies of variation and heredity in the family and in society. In the newer community the former is stronger; in older communities the latter. Interesting studies in this connection are afforded by the differences between east and west in this country.

Fifth. The narrow margin between the wants of people and the means of satisfaction precipitates a continual conflict - *to struggle for peace, for existence*—in which

Sixth. The individual or community *best adapted to the situation survives*, that is, gets the best place. This is the Law of Natural Selection.

The sway of nature, the fatality of natural forces, diminishes as society becomes enlightened and co-operates in an equitable division of labor.

The study of the physical basis of society serves to impress the significance of the development of science and of science-teaching as a factor in social progress.

CHAPTER III.

"Society is composed of persons, of human beings." It is composed of individuals in association. The individual is the source and center of all social forces (56-V.) Social movements then are conditioned by the nature of the individual. Psychology underlies sociology. The nature of the individual—the "social member"—is the primary factor in society.

Bodily appetites and passions are of primary interest to the sociologist. The appetite of sex conditions the family and influences customs, laws and sentiments; the demand for food is the motif of industry; the appetite for drink is a large factor in the temperance situation. The quantity of air required by the individual regulates the architecture of dwellings, churches, school-rooms and prisons. The laws of fatigue and nutrition regulate the length of the school-day and the number of hours in the workman's day. In these and numerous similar instances the physiology of the individual is vital. The degree of energy, state of health and condition of the senses are important factors.

The emotions of the individual are of vast importance to society. Love, hate, sympathy, apathy, generosity, exert a strong influence on social relations. *Sympathy is the spiritual basis of co-operation.* The similarity of mental operations makes co-operation possible, while mental "differences are the ground and cause of unity." If it were not for the large common element in human nature, men could not, and would not enter into association, but if it were not for differences in aptitude, there would be little reason for division of labor. Social development then requires both the mass and the individual, uniformity and variety, the mediocre and the genius, the lock-step and individuality.

The criminal, insane, pauper and defective persons are individuals, in which entirely natural peculiarities have become excessive. This perception of the nature of defection lies at the basis of the reforms in the treatment of the defective classes.

The lines of growth in society are identical with the lines of growth in the individual. For this reason Child-study, which aims to discover the laws of child growth, is of very great concern to the sociologist.

The building up of a system of knowledge is one of the greatest products of social effort. The social element of knowledge is large. The individual's ideas are seldom his own. His observations are modified and supplemented by the observations of others; his impressions corrected and completed by theirs. Herein lies the value of class teaching, of assemblies, debating societies, clubs, lodges, and of large families. The study of the educative value of these agencies is an excellent exercise for the older pupils. It will at the same time enlarge the teacher's view of educational forces. The mutual interchange of opinion is a great educative factor, and one of special value in the school. The social impulse of the individual, also has great significance for the sociologist. Man is imitative, sociable. He seeks the companionship of his fellows—his neighbors. If he has no human companions, he will form the most intimate friendship with spiders and mice. The same impulse attaches to the locality in which one lives. The nature and strength of this impulse of companionship is very clearly pictured in "The Prisoner of Chillon."

The chapter on "The Social Member" is one of the strongest in Dr. Henderson's book, and merits the reader's most careful attention. It will pay well to read it many times.

CHAPTER IV.

The central thought in the chapter on the family, is that the home involves all social elements—is the social world in miniature. Social life is a specialization and extension of family life. Housekeeping was the primitive industry, and "all social industries are specialized housekeeping, carried out on the grand scale." That is, manufacturing, agriculture, commerce, transportation, exchange, etc., once were performed exclusively by the family. The family has slowly given over its former activities, one by one, to specialized agencies. A valuable study for reader and pupil in school, consists in picturing the round of duties performed by the pioneer family, and in tracing out the surrender of them, one by one to other agencies. Contrast the pioneer home with the modern home.

The thought on page 65, concerning the factor of children in the creation of the family, suggests the discovery of *Wilhelm Meister*, that man does not become a person, a really sociable creature, until he attains the relation of parenthood.

The teacher will find immense value in the paragraphs on the educative work of the home, (65-68). It is there that the child gets his "simple ideas," the foundation of all later knowledge, and his interests in the world about him. From parents he learns his language, develops religious tendencies, forms his standards of taste and conduct. "The home is the real primary school, the original temple, the first government." In the home the child gets his creed and his code of laws. The author's view of the home as a "domestic republic," with its code, its suits at law, its supreme court and summary dealing out of justice, shows vividly the large civic training afforded in family life. If parents were conscious of their opportunity, they could turn it to great account in the betterment of civic affairs. I take it that the thought of the author is expressed in the sentences on

page 69: "Thus the family is not a product of society in the beginning, but it produces general society. The race comes into being through the domestic institution. The family differs from other institutions further in the fact that *its organization is fixed*, because of the nature of its members, while *they may be modified* at the will of society. The home is a conservative force in society, preserving property, art and book collections, customs, curios, sentiments, legends and the "spiritual goods" of the race. In the home we also find the beginnings of progress. As the family life progresses, so moves the nation. The greatest of social problems in all ages is the problem of securing better family life.

CHAPTER V.

Chapter five presents the institutions which are essentially auxiliary to the home. They comprise the agencies created and sustained by co-operation for the purpose of making family life secure, comfortable, easy. The reader may be helped in perusing this chapter by a brief outline, showing the relation of the

AUXILIARY INSTITUTIONS.

I. System of Protection.

1. Police System.
2. Health Department.
3. Fire Department.
4. Army and Navy.
5. Dikes and Drainage.

II. System of Comfort and Convenience.

1. The Market.
2. Water Works.
3. City Light Plant.
4. Street Cleaning Department.

III. System of Adaptation to Space.

1. Location of Towns—Making Town Plats.
2. Transportation Systems.
3. Systems of Communications—Telephone, Telegraph, Postal System.

IV. System of Time-Keeping—Standard Time.

V. System of Standard Weights and Measure.

The author has suggested in the appendix suitable topics for supplementary work in institutes and schools. Chapter V may be presented in schools without modification.

W. A. MILLIS.

METHOD.

II. SPECIAL.

By Special Method is meant, the method in teaching a particular subject and it involves the mind's general process of learning applied to the particular subject-matter.

In working out the method in teaching a branch of study the teacher must determine:

1. The scope of the subject.
- a. Steps in determining the

scope. { } (Subject-matter.)

Illustrate.

2. The real. (Basis.)
3. The ideal. (Purpose.)
4. The process. (Steps.)
5. Means. (Devices.)

Illustrate with some lesson,

NOTE—Former institute outlines and discussions in files of the *Inland Educator* and the *INDIANA SCHOOL JOURNAL* will be helpful.

The presentation of any subject is concerned directly with actual class work. The pre-supposition is, that the teacher has already traced the development of the work from truths of mind and the involved branch of knowledge; more specifically, has determined, (1) the basis in the child's mind for the work presented, (2) the purpose in presenting it, and (3) the subject-matter itself.

The immediate considerations in presentation are, (1) steps, (2) devices. The steps are those activities of the child's mind which he puts forth in gaining all that the subject or lesson is fitted to give him; or, they are his distinct acts in learning. The devices are media of communication between the mind of the teacher and the mind of the child, for the work suggested by the one and actualized by the other. They are the chosen stimuli by which the teacher may direct the child's mental activities. The device is therefore, only the embodiment of the idea for whose sake it exists. It may be any expression of meaning, as a question, an action, or a group of objects. Obviously, the first requisite of device is that it express the given meaning clearly and completely.

The first phase of reading is that in which the child associates the meaning of the word with its visible form as a whole. (For the pre-suppositions in mind and subject-matter which determine its presentation, reference is made to an article on "Stages in Learning to Read," in the *JOURNAL* for October, 1888.)

The steps in mastering this phase, to be provided for by the teacher, are: (1) to call into consciousness the selected idea; (2) to image the form of the corresponding word; (3) to strongly associate the idea and the form of the word, with the stress of the mind's energy upon the idea. These three steps, though logically distinct, are closely related by the very nature of the act of association. So that in considering the presentation of any one, necessary reference is made to the other. The devices for the first step are determined only by a clear and constant consideration of its aim, which is; to have the child's whole mental energy thrown upon a certain idea. For example, the given word is *tree*; the child is clearly and forcibly to act the idea which we call "tree." The device is the means by which the teacher stimulates his mind to that particular action. To lose sight for a moment of the fact that the child's mind must deal primarily with an idea, is fatal to a realization of the general aim to associate meaning and form. Here hinges the difficulty. The device selected may call the attention of the child to

the idea, but much more prominently to the device itself. Thus when the picture of a dog is presented to him, it is quite possible for the mental energy to be strongly engaged upon the picture as such, while the meaning, dog, receives only the residue of attention. This point is clearly seen in the attempt to employ the oral word as a device. The sound is the impressive thing, and the meaning is but dimly in consciousness. Each repetition in fixing the association with the form, only leaves the sound more meaningless, so that at the sight of the form the child thinks the sound of the oral word. Were the aim to associate the spoken word with the form, this plan would be pre-eminently successful. The oral word is discarded as a device in this step, not because it stands for anything other than the meaning, but because of the presence of a prominent distracting element.

The second requisite of device in the step is, that it shall give the minimum of opportunity for divided mental energy. It is a view usually held, that the mere presentation of the object, or in general, the employment of objective illustration, is the ideal method of leading the child to act the desired idea. Certainly, the first and second requisites are fulfilled, in that the idea is perfectly expressed, and so as to invite undivided mental energy. But in another view, the use of objective illustration may or may not be effective. A word, spoken or written, stands for a *general* idea. For example, "umbrella" represents the concept which includes every particular object in which the essential characteristics of umbrella are found. Each individual umbrella is so only because it possesses the marks of the universal umbrella. But any particular umbrella presents many marks other than the essentials. The child is able to use the general idea, umbrella; he gained it by experience with many articles, differing as to unessentials, but all possessing the necessary elements of the umbrella. He has not rejected the unessentials in forming his general idea, but has included them; and he realizes that the umbrella may be black, white, or green; of silk, wool, or cotton; small, medium-sized or large. "Umbrella" means to him any possible umbrella. Thus the spoken word, umbrella, has this meaning to him, because he has associated the name with all the varying embodiments of the idea, umbrella, which his experience has encountered.

If the written word possess the same fullness of meaning, it must be by a similar process of associating directly with the written form, many types of the object, present or not to the senses. Therefore, if the word "apple" is to be taught, its content is not to be limited to "small green apple" by the consideration of a single specimen, to the neglect of the large red apple, the medium-sized yellow one, etc. Present to a child repeatedly the same small black cat and the printed form, cat, so that he associates the one with the other. Then present the form alone; but the small black animal is present in the child's mind also. It is bound to appear; and until the diminutive dusky apparition is exorcised, *cat* in the book or elsewhere means *small black cat*. This meaning of course he substitutes for "cat" in the sentence, "There is a large white cat." If after the lapse of time he is able to put any meaning into the sentence, it is in spite of the teaching, not because of it. A similar result would be obtained by the constant representation of a certain selected illustration for the meaning of any word.

From the foregoing, the third requisite is that the device represent the *general* idea; and should therefore consist of many and varied particulars. In the large number of cases in which the presentation of the subject to the sense is impracticable, the child is led to think of it by means of a method which may be called that of suggestive language. The teacher repeatedly uses the idea in talking to the pupils, the thought of the sentence suggesting the idea in every case. The oral word is not used except in a few cases to avoid confusion of terms. For example, the child may think "chicken" when the teacher is dealing with "hen,"—a difficulty obviated by the incidental use of the oral term. With this exception, the visible form is used instead of the spoken word.

The following illustration involves the three steps of, (1) acting meaning, (2) imaging form, (3) associating form and meaning. Having selected the word "cage," the teacher may proceed somewhat as follows (writing the word on the board in every case, not speaking it):

"Yesterday morning my bird got out between the wires of its cage, and I feared it would fly away. But I put the cage on the floor, opened the cage door, and after awhile the bird hopped into the cage. He has a pretty brass cage, but he likes to get out sometimes.

When the show was here, I saw the parade. I was not afraid of the lion, for he was in a large, strong cage. The giraffe was so tall that he had been put into a very high cage. I could see the bear through the iron bars of his cage. The next cage was a round one, full of parrots. The next cage was a small, square one, and held a little monkey.

A boy caught a squirrel in the woods, brought it home and shut it up in a cage. The squirrel did not like to live in a cage, though it was a bright new one. So the boy opened the door of the cage, and let the squirrel go."

From the first sentence to the last, it is usually apparent that the child is thoroughly engaged in making the desired association of meaning and form. He needs no telling that the new form stands for "cage"; he has used it for that purpose already, as often as it occurred in the talk of the teacher. He is, now quite able to "tell a story" himself about a cage, pointing to the word instead of speaking it. He soon does this skillfully and thereby grows in clear and original thinking and its correct and adequate expression.

The presentation of objects and other objective illustration to the senses is much simpler in regard to the first step, as that is secured directly. As already developed, the main point is that the illustrations be so numerous and varied as to allow of generalization. The appropriate device for the second step,—the imaging of the form of the word,—has already been implied as the rapid tracing of the given form under conditions which secure direct and strong association with its meaning.

The third step,—association,—is the immediate result of the first and second steps. That is to say, the meaning was in consciousness in connection with the form; and the form was imaged only for the purpose of representing the meaning. Since association is the end of the process, devices for the first and second steps are more or less directly devices for the third. Thus, the use of many particulars dealt with for the sake of enabling the

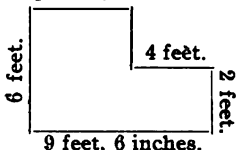
child to put a *general* idea into the form, secures also the repetition, and variety of repetition, necessary to fix the association. An additional point under the third step is, that the child in associating should pass from meaning to form, and from form to meaning; with the stress somewhat upon the form, since until he begins to write, he has more need for the meaning in the form than for the form to express his own meaning. M. F.

QUESTIONS AND ANSWERS.

STATE BOARD QUESTIONS USED IN AUGUST.

ARITHMETIC.

1. *A piece of slate board of the shape and dimensions as indicated in this figure was sold at 30 cents per square foot. What was paid for it by the purchaser?*



Answer, \$12.30.

2. *State in detail how you would seek to make clear to pupils, the difference between linear foot, square foot, and cubic foot.*

First, they should be led to understand the ideas of line, surface, and solid; this can be done by use of objects and blackboard illustrations. Then by using a foot rule, the idea of length, width, height, or depth can be taught, the pupils taking part in the measurement of objects; then state that the *feet* spoken of in connection with these dimensions or distances are *linear* feet. Next, cut out of some paste-board a square foot and, on the blackboard, or some other convenient surface, apply this square foot a certain number of times, (say 6 times, 2 by 3), and enclose it by lines. Then let some pupil prove by trial that the paste-board square foot can be applied to the enclosed surface six times. Now draw lines so as to show the six square feet. Other similar exercises will soon give the pupils the idea of a square foot. If possible the cubic foot should be illustrated by using an actual cubic foot of wood in one piece, and then measuring each dimension with a foot rule. By using a smaller cube and having the pupils to imagine each of its dimensions extended till it would be a foot, is the next best plan.

3. *What will it cost to paint the outside of an iron smoke stack which is sixty feet high and four feet in diameter at twenty-five cents a square yard?*

$4 \times 3.1416 \times 60 \times \frac{1}{3} \times \frac{1}{3} = 20.944$; hence the answer is \$20.944

4. *Twenty men working twelve weeks, six days each week, and eight hours each day, lay 60,000 bricks. In how many weeks will twice the number of men working one day less per week but one hour more per day lay the same number.*

Answer, $6\frac{2}{3}$.

5. *An agent receives \$3,694.95 with instructions to invest the proceeds in wheat after taking out his commission of $3\frac{1}{2}$ per cent. How many bushels at 95 cents per bushel did he purchase?*

$3694.95 + 1.035 = 3570$; $3570 + .95 = 3757\frac{1}{8}$; hence the answer is $3757\frac{1}{8}$ bushels.

6. *Of what value to students of Arithmetic do you consider purely "oral" or mental work? What proportion of the time would you devote to this kind of work?*

(a) It is of very great value, for as compared to written Arithmetic it puts the mind to greater effort; gives a better training in language; and economizes time in the learning of processes and principles. (b) About one-half of the time.

HISTORY.

1. *What was the extent of the English possessions in North America at the close of the French and Indian War?*

Canada and all the territory east of the Mississippi River. France retained for fishing stations two small islands, St. Pierre and Miquelon, in the Gulf of St. Lawrence. West of the Mississippi was owned by Spain, and west of Canada was claimed by both Spain and England.

2. *What is Clark's Grant in Floyd County? (a) Extent? (b) To whom granted? (c) Why granted? (d) By whom granted?*

We haven't the document at hand that gives the information in regard to "Clark's Grant in Floyd County." As a matter of kindred interest we append below some information in regard to a grant made to Clark about 1775.

A tract of land was granted to George Rogers Clark by the Piankeshaws. The grant was $2\frac{1}{2}$ leagues square, and was situated on the west side of the Falls of the Ohio, the location of Clark's subsequent grant from Virginia.

The Piankeshaws were much rejoiced at the American Success in Clark's memorable campaign, as it insured them immunity from molestation by their hostile brethren; and their joy was increased when Clark assured them that the representations of the English that the Americans wanted their lands were false. They at once held a council, and presented him the tract of land mentioned above. He at first refused it, but, on finding that this made them fear that he would not remain among them, he accepted a deed for it. (See Dunn's Indiana).

3. *What was the "Whisky Rebellion"—its cause? Why was its suppression a matter of much greater importance than the magnitude of the insurrection would indicate?*

The "Whisky Rebellion," was a rebellion of the farmers of western Pennsylvania, in 1794, against the excise duty of nine cents a gallon. It bore with great hardship on the whole population of the district; they denounced it as unconstitutional and oppressive, and drove the excise officers out of the country. The suppression of the rebellion was a matter of very

great importance to Washington for he feared that the rioters might threaten "the very existence of the Government." He accordingly despatched an army of 15,000 militia to enforce the law. The troops crossed the Alleghanies and restored order without bloodshed.

4. *With what important inventions are the names of (a) Eli Whitney, (b) Elias Howe, (c) Samuel F. B. Morse, (d) Charles Goodyear, associated as inventors?*

(a) The cotton gin; (b) the sewing machine; (c) the electric telegraph; (d) vulcanized rubber.

5. *What caused the war with Mexico?*

The war with Mexico was caused by the annexation of Texas, a part of Mexico that had revolted. These defeated the Mexicans, declared their independence and sought annexation to the United States. Texas was admitted in 1845. While these events were occurring there arose a boundary dispute between Texas and Mexico, which the admission of Texas brought into special prominence; and Gen. Taylor was ordered to advance into the disputed territory between the Neuces river and the Rio Grande. The Mexicans considered this an invasion of their territory, and therefore an act of war, and sent a force across the Rio Grande and killed some Americans belonging to a reconnoitering party. President Polk at once sent a message to Congress, declaring that "War exists notwithstanding all our efforts to avoid it—exists by the act of Mexico herself. Mexico has invaded our territory and shed American blood upon American soil."

6. *What reasons impelled the issuance of the "Emancipation Proclamation?"*

(a). The blacks were a great source of strength to the Confederate cause; their labor supplied food for the southern families and for the southern army; (b) the sentiment in regard to slavery was changing in the north. People had come to look upon it as the cause of war, and many desired the government to attack it as a war measure; (c) abroad it would strengthen the cause and practically destroy the possibility of the foreign recognition of the Confederacy.

7. *What Vice-Presidents have become Presidents in consequence of the death of the President? Give year in each case, and state the name of the President to whom the Vice-President succeeded.*

John Tyler, 1841, William Henry Harrison; Millard Fillmore, 1850, Zachary Taylor; Andrew Johnson, 1865, Abraham Lincoln; C. A. Arthur, 1881, James A. Garfield.

GEOGRAPHY.

1. *What emphasis would you place on the teaching of the geography of Indiana? Why?*

A child should know the geography of his native State as a basis for other geographical work. He should be familiar with the nature of his own home and environment as a matter of pride and satisfaction.

2. *Discuss France with reference to—(a) Surface and drainage; (b) Government; (c) Industries; (d) Commerce.*

(a) The surface of France is mountainous in the east and south-west; rolling in the central portions, and level in the north and west. It is drained by the Loire, Rhone, Seine and Garonne rivers. (b) The government is a republic whose president is elected every seven years. (c) The chief industries are manufacturing and farming. (d) The commerce is very extensive, carried on with nearly all parts of the world.

3. *What changes will have to be made in our geographies as a result of the war with Spain? Name and locate the islands which have been mentioned most frequently in this war.*

(a) Changes will have to be made embodying Cuba and all islands ceded by Spain to the United States. (b) Cuba, south-east of the United States; Porto Rico, east of Hayti; Phillipine Islands, south-east of China.

4. *Name two classes of islands and give theory of their formation.*

Volcanic, due to sub-marine volcanoes. Coral, formed by the coral polypa.

5. *What do you consider the logical order in teaching political, physical and mathematical Geography? Why?*

Mathematical, physical and political, since this is the order of geographical development.

6. *Give the general distribution of the races.*

White—Europe, North and South America. Yellow—Asia. Black—Africa. Brown—Malay Peninsula and Oceanica. Red—North and South America.

GRAMMAR.

1. *Composition in its broadest sense involves what?*

Composition involves invention and style. It includes ideas and their arrangement and utterance in sentences and paragraphs. In its broadest sense it deals with the oral expression of thought as well as its written expression.

2. *How is composition related to reading? To what extent may they be taught correlatively?*

Composition is a natural sequence of the art of reading. The principle underlying it is the same as that in the other language arts. Power of utterance is the first requisite to be obtained. To secure freedom and spontaneity should be the aim of the teacher. All exercises that may be grouped around the reading lesson will contribute to the composition lesson. Stories, conversations, narratives, descriptions, and recitations increase the pupil's power of thought and enlarge his vocabulary.

3. *Do you believe the ability to write well is natural or acquired? Cite reasons in justification of your answer.*

In some instances it is natural, but in the majority of cases it is acquired. By studying correct models, the writer unconsciously takes on to a certain

extent the form and thought of the model or example studied. The manner and style of great writers are often imitated or embodied in the composition of inferior writers as a result of reading or study.

4. Use the following words correctly in sentences; *affect, effect; accept, except; principal, principle; to, too, two; there, their; peace, piece.*

(a) Heat will *affect* metals. Moral lessons should *effect* good results. (b) Please *accept* this present. All were present *except* John. (c) The *principal* violated a *principle* of teaching. (d) The *two* girls came *too* late to school. (e) *There* were six boys in *their* places. (f) Spain desired *peace*. He had a *piece* of iron.

5. After each of these words write a synonym; *demeanor, loud, calumny, calm, reply, dull, observer, enough, hasten, sad.*

Demeanor, conduct; loud, noisy; calumny, slander; calm, quiet; reply, answer; dull, stupid; observer, onlooker; enough, sufficient; hasten, hurry; sad, sorrowful.

6. Punctuate and give rules: (a) Sink or swim live or die survive or perish I give my hand and heart to this vote. (b) Mr. President I rise to a point of order. (c) Burns the poet was a Scotchman.

Sink or swim, live or die, survive or perish, I give my hand and heart to this vote. A series of three or more co-ordinate elements should be separated by commas. A phrase or expression preceding the main sentence is sometimes set off by a comma. Mr. President, I rise to a point of order. A noun used in the nominative case by way of address should be set off by the comma. Burns, the poet, was a Scotchman. A noun in apposition is usually set off by the comma.

READING.

1. How does close, personal contact with nature form a valuable preparation for a child in reading?

It furnishes the mind with the necessary material to construct the images in reading, and broadens the view so that the child can more readily place himself in unity with any selection read.

2. What is meant by "reading as art?"

Reading as an art includes the mastery of the thoughts embodied in the selection, and the proper expression. It involves (1) recognition of the printed symbols; (2) ability to express their sound equivalents; (3) understanding of the subject-matter.

3. What are some of the best known methods of teaching children to read? Which seems to you the most reasonable method of procedure? Why?

The word method; sentence method; phonic method; alphabetic method; and synthetic method.

The word method combined with the sentence method. Because by this combination we can proceed according to the natural action and development of mind.

4. *Of what importance are rules in oral reading? Of what importance is imitation?*

Rules are of no importance in oral reading. Follow the tone, the emphasis, etc., naturally used in conversation. The pupil must *feel* the sentiment to be expressed; the language will then be uttered naturally, and of course correctly. Imitation of correct models or examples is very helpful; it arouses and incites feeling that otherwise might not be experienced.

5. *Is anything lost by the failure to practise "reading aloud" as much as formerly? What?*

Yes, a great deal. Adequate and correct thinking and clear and distinct oral expression.

6. *Of what value is an intelligent oral expression in the study of literature?*

It makes the reader feel more readily and accurately the thoughts expressed and brings the reader into a closer sympathetic union with the higher attributes of character.

7. *Is it true that the pupil who "understands the meaning in a sentence or paragraph will give the correct oral expression?" Why?*

Generally, but not always. Because the vocal organs have not been trained to such an extent as to act in accordance with the movement of the mind.

8. *What can be done by the children in the lower grades by way of independent preparation of the reading lesson?*

They can read the lesson silently, hunt out the points, or ideas, assigned by the teacher for the lesson,—such as the persons and the places mentioned in the lesson; and the ideas or thoughts found therein, with their relations. The pupils may also be required to make a list of the new and difficult words; or to find out the meaning of particular phrases or sentences.

9. *How may the bad effects of the "scrappy" nature of most school readers be overcome in the higher grades?*

By introducing masterpieces of literature as supplementary or regular reading.

PHYSIOLOGY.

1. *Describe the probable line of action upon hearing a loud report behind one, giving the processes and result of each action.*

The bearer experiences the effect of the sound waves, and the process by which we hear takes place. To a certain extent we can judge the direction of the external source, by the aid of the concha. The head is turned to the right or to the left, according as the sound is heard louder by the right ear or by the left. This turning of the head enables one to localize the source.

2. *Describe the knee joint.*

The knee joint is a hinge joint. The femur rests upon the tibia, slightly supported on one side by the fibula. Strong cord-like ligaments cross each

other between the ends of the bones, and a capsular ligament surrounds the joint. The ends forming the joint are covered with cartilage so as to deaden shocks and are "oiled" by synovia so as to facilitate movement and lessen friction. The patella is held in front of the joint by ligaments. The two bone surfaces fit together accurately, a rounded projection of one fitting into a depression or joint socket, in the other.

3. *What is the lumbar enlargement of the spinal chord, and to what is it due?*

The lumbar enlargement of the spinal cord is an enlargement of the spinal chord in the lumbar region and is due to an increased amount of gray matter, to the large size of the roots of the lumbar nerves, and to the great number of their filaments. The gray matter in the lumbar region is more abundant than in any other region of the chord.

4. *Describe a heart beat and its results along the blood vessels.*

The heart beat is due to the contraction of the ventricles; it causes the alternate expansion of the artery by the wave of blood, and the recoil of the arterial walls by their elasticity, thereby producing what is known as the pulse. The blood wave strikes upon the elastic walls of the arteries, causing an increased distention, followed at once by contraction. These results are manifest as far as to the capillaries, whose smallness of caliber and great number break up and destroy the pulse wave.

5. *Describe the peculiar adaptation of the structure of the lungs for their function.*

They are composed of tiny air sacs which communicate freely with the air through the wind-pipe and nose, (or mouth). These air sacs are made of exceedingly thin elastic membrane and the blood-vessels distributed on their inner surface have very thin delicate walls. Hence the structure of both the cells and the capillaries are favorable for an interchange of the carbon dioxide of the blood and the oxygen of the air. Microscopic hairs cover the surface of the epithelium and wave continually in a rapid up and down motion which tends to force dust and mucus away from the lungs.

6. *Of what advantages are the valves in the veins?*

Valves in the veins prevent a backward flow of the blood, yet they do not obstruct blood flowing toward the heart.

7. *What are the principal serous cavities?*

The peritoneal, pleural, arachnoidal and pericardiac.

8. *Contrast the combustion in an engine with the oxidation in the body?*

In the furnace of an engine, by heating the fuel up to the kindling point, in the presence of air, its nature is destroyed, and the resulting substances are carbon dioxide, water, and ashes,—and heat is developed. In the body, the oxygen slowly burns food and the cells, just as it oxidizes the wood in the furnace. By the oxidation within the cells of the body, carbon dioxide, water, and salts are formed, heat being developed as a result.

SCIENTIFIC TEMPERANCE.

1. *How does alcohol in large doses assist the poison of the snake in cases of rattlesnake bite?*

Experience does not show that the poison of the snake is assisted by the alcohol, both being present in the blood,—but that it is neutralized, or destroyed.

2. *What are the dangers of alcoholic beverages over the use of stimulants such as tea and coffee?*

The harmful principles of tea and coffee exist in the daily ration in such small quantities, that injurious effects are slow in developing; moreover, each is usually diluted with sugar and milk; each also has virtues more or less valuable to different persons. Alcoholic beverages contain a per cent. of alcohol sufficient to produce immediate harm, and continued use quickly produces injurious effects; besides, alcohol has no redeeming virtue whatever.

3. *What is the effect of drinking whisky on a cold day?*

The effect is to lower the temperature.

4. *What is the effect of alcohol on the appetite?*

In small doses, the effect is to stimulate slightly the flow of the gastric juice and the blood circulation in the mucous membrane. As a consequence the appetite is slightly stimulated; but in the course of time, this effect ceases and the appetite becomes dulled and deranged.

5. *What becomes of the alcohol that is not burned in the body?*

It is removed from the system by the lungs, the skin, and the kidneys.

SCIENCE OF EDUCATION.

1. *What does this dialogue show to be the main arguments for immortality?*

(a) The doctrine of analogy to nature's law—the generation of the living from the dead. (b) The doctrine of recollection, or reminiscence,—the pre-existence of the soul. (c) The nature of the soul itself (see 436). (d) An argument that is drawn from the "doctrine of ideas."

2. *What is the argument from reminiscence?*

See "Plato," pages 414 and 434.

3. *What bearing has the conversation concerning Evenus upon the argument?*

It intends to show the spirit of liberality and freedom one should hold toward others, and the sympathetic interest we should have for those who are in search of wisdom or who are assisting in the elevation of mankind. It also sets forth clearly the measure Socrates always applies to a man. His ideal man is a true philosopher.

4. *What is the argument from harmony?*

It may be argued that like the soul, harmony is invisible, incorporeal,

perfect, and divine, and from this draw the conclusion that the soul is a harmony; but harmony can not exist prior to the instrument with which it is made; it follows as an effect. The theory of the soul as a harmony must be rejected because it is inconsistent with the doctrine of pre-existence. (See p. 446).

5. *What is the object in giving a picture of the world beyond?*

To lead a man to be of good cheer about his soul and its abiding place after separation from the body. It is a natural and logical conclusion to the foregoing arguments. By centering his mind on the world beyond, man would lose sight of the illusive world of sense and live more fully and freely in a state which would ultimately lead him into the true heavenly kingdom with God. The soul by its very nature belongs to this eternal and good world. (See 451.)

6. *What do you consider the educational value of the Phædo?*

The "Phædo" gives a conception of the absolute nature and destiny of man. Knowing man's nature and destiny we are capable of forming a rational code of instruction both intellectual and moral, and thus assist an individual in realizing the highest possible attainments. Briefly, its highest educational value is the idea, always uppermost throughout the chapter, that the chief aim of education should be character.

QUERIES.—Several queries stand over to be answered next month.

MISCELLANY.

THE INDIANA STATE FAIR will be held at Indianapolis September 12-17.

MARSHALL COUNTY.—Graduated last year from its township schools, 150 students. This is certainly doing well. Geo. D. Marks is Superintendent.

SOUTHERN INDIANA NORMAL.—The school is located at Mitchell. Its president, D. B. Gilbert, reports the prospects for a large attendance the coming year, good.

OHIO COUNTY.—T. G. Alford and R. L. Thiebaud were our principal instructors and they did good work. Superintendent E. S. Espey commands the respect and has the support of our teachers.

"THE PUBLIC SCHOOLS" was the title of an address made at the State Association by W. H. Sanders, of Marion. The address was a good one and the demand for it has induced the author to put it in print in booklet form.

SHELBY COUNTY.—F. D. Churchill and O. P. McAuley did most of the work here with help each day from J. H. Tomlin. The chief characteristic of the work done here was that theory was made subservient to practical suggestions.

DECATUR COUNTY was well instructed by W. E. Henry and Lydia R. Blaich with W. E. M. Browne to "whoop up" the music. Everything

passed off smoothly and the teachers went home feeling well repaid for the time spent in the institute. E. E. German is the superintendent.

SCOTT COUNTY.—E. A. Gladden, superintendent. The institute this year was certainly a superior one. W. H. Mace and W. H. Glasscock were the principal instructors. Each of these instructors gave an evening lecture. The teachers were held up to a high plane of thinking all the week.

FAYETTE COUNTY is one of the smaller counties but it contains a large amount of good teaching material. The institute this year was instructed by W. H. Glasscock and E. B. Bryan, and at the close everybody was pleased. Calvin Ochiltree is making a very acceptable superintendent.

DUBOIS COUNTY.—The institute was held August 22-26, with Mrs. Emma Mont McRae and A. J. Kinnaman as the principal instructors. A profitable institute was thus assured in advance. Superintendent Geo. R. Wilson always makes elaborate preparations for such meetings and his plans always work out well.

Elmer E. Griffith, Professor of Literature in Indiana University, and C. E. Goodell, Professor of History in Franklin College were the instructors in the Dearborn County Institute. Each of these men stands high in his specialty. Superintendent S. K. Gold has affairs well in hand and he sees to it that things come up according to schedule. The Gold standard is working well in this county.

JOHNSON COUNTY held its institute August 22-26, and it was well attended. J. F. Brown, vice president of Earlham College, and W. C. Palmer, superintendent at Ligonier, were the principal instructors. Miss Marcia Miller gave two lessons a day in music. As this was county superintendent J. W. Terman's first institute he was gratified to have it pass off smoothly and successfully.

WASHINGTON COUNTY.—This is a good county and the teachers rank high for general intelligence and professional spirit. Profs. R. J. Aley and Thos. Newlin did the work, being ably assisted in the musical work by Prof. S. C. Hanson, the noted musical author. Prof. Hanson is not only a good author but he is also a good teacher of music. County Superintendent Hall has his work well in hand and is well liked.

SWITZERLAND COUNTY.—The institute was instructed by Profs. Glenn Culbertson and J. L. Lowes, of Hanover College, and R. L. Thiebaud of Rising Sun. Superintendent D. N. Hayden, did not make the mistake of over-crowding his program. It provided for only two talks each half-day. The editor of the JOURNAL spent a day in the institute, and was well repaid for his visit. This little county is noted for the large number of its citizens who have attained high positions of honor and usefulness.

LAWRENCE COUNTY.—Superintendent W. E. Stipp had his plans so well arranged, that a good institute was inevitable. W. W. Black and H. R. Pattengill were the principal instructors. Mrs. Lenora Clark, of the Normal College at Mitchell, had charge of the music and did her work well. State Superintendent Geeting was present one day, and was warmly received.

The institute was certainly a good one. This institute sustained a four-column, four-page daily paper, which gave a full report of each exercise.

RIDGEVILLE COLLEGE will open its 31st annual session September 26th. At the last meeting of the Board of Trustees it was resolved, "That the Preparatory Department of Ridgeville College be hereafter known as Ridgeville Academy." This was a good "resolve." Several other colleges and universities that do only academic work, should pass similar resolutions. It is the purpose of the management to attempt only academic work, and do that *well*. For particulars address the Secretary, W. B. Starr, Ridgeville, Ind.

THE NORTHERN INDIANA NORMAL SCHOOL celebrated its *twenty-fifth* anniversary August 10-11. The occasion is reported as most delightful. Over 1500 visitors were present. Over 800 attended the banquet on the evening of the 10th. This is probably the largest banquet ever held in the west in connection with an educational institution. The exercises were of a high grade and did credit to the persons taking part and to the institution. Of course the president, H. B. Brown, was in a good humor. He always is when surrounded by friends.

JACKSON COUNTY held its institute, August 1-5, with Elmer C. Bryan and Miss Lelia E. Partridge as instructors. Mr. Bryan is one the most helpful and entertaining instructors in the State, and Miss Partridge has a national reputation as an institute worker. They were assisted by H. C. Montgomery and L. N. Fouts of the county, and J. M. Black, of Washington, in music. One evening was given to the oratorical contest of the graduates from the country schools. The court house was crowded with interested people, who went away much pleased. J. E. Payne is the County Superintendent.

BROWN COUNTY held its institute August 22-26, with Messrs. E. E. Olcott and J. H. Tomlin as instructors. They did good work and the teachers were well pleased. The writer was present one day and was much pleased with the spirit manifested by the teachers. It was unfortunate that County Superintendent Campbell was seriously sick with typhoid fever and could not be present. Ex-County Superintendent Snyder, however, came to the rescue. He promptly took hold and carried on the work without friction. Brown County is all right and is keeping in touch with the best educational thought.

HAMILTON COUNTY held this year another one of its large and excellent summer normal schools. The writer was present the third day, and the enrollment had reached *ninety-eight*. Jno. F. Haynes, Superintendent of the Noblesville schools, and County Superintendent, E. A. Hutchens, were the managers and did most of the teaching. All the instruction was good, as only competent assistants were employed. This County has a fine body of teachers, and this fact is due in part to these excellent summer schools, and in part to the fact that it has had a thorough Superintendent to direct its work for a long series of years.

TO APPLICANTS FOR GRADUATION FROM COMMON SCHOOL BRANCHES, 1899.

The questions on reading will be based upon the following selections from "LITERARY SELECTIONS."

February, 1899, Irving's "The Legend of Sleepy Hollow."

March, 1899, Bryant's "The Death of the Flowers."

April, 1899, Longfellow's "A Psalm of Life."

Respectfully,

GEORGE R. WILSON, *Chairman*,

Jasper, Ind., August 1, 1898. Committee on Diploma Questions.

NATIONAL EDUCATIONAL ASSOCIATION.

SECRETARY'S OFFICE, WINONA, MINN., August 1, 1898.

Announcement—Amending Spelling.

The Department of Superintendence of the N. E. A., at its meeting in Indianapolis, Ind., February 17, 1898, appointed a committee consisting of Dr. Wm. T. Harris, United States Commissioner of Education, Washington, D. C.; Dr. F. Louis Soldan, Superintendent of Schools, St. Louis, Mo., and T. M. Balliet, Superintendent of Schools, Springfield, Mass., to recommend a list of words with simplified spelling for use in the published proceedings of the Department.

The report of the committee was duly made and the spelling so authorized was used in the published proceedings of the meeting of the Department held in Chattanooga, Tenn., February 22-24, 1898.

At a meeting of the Board of Directors of the N. E. A., held in Washington, D. C., July 7, 1898, the action of the Department of Superintendence was approved and the list of words with simplified spelling adopted for use in all publications of the N. E. A. as follows:

Program—(programme); tho—(though); altho—(although); thoro—(thorough); thorofare—(thoroughfare); thru—(through); thruout—(throughout); catalog—(catalogue); prolog—(prologue); decalog—(decatalogue); demagog—(demagogue); pedagog—(pedagogue).

You are invited to extend notice of this action and to join in securing the general adoption of the suggested amendments.

IRWIN SHEPARD, *Secretary*.

PERSONAL.

J. W. HADLEY will remain at Forest at an increased salary.

C. E. WILSON a De Pauw junior, is principal of the high school at Red Key.

H. H. COOPER has been promoted to the superintendency at Knightstown.

FRANK B. LONG will soon enter on his fifth year as superintendent at Colfax.

W. B. VANGORDER, of Knightstown, spent the summer at Chicago University.

J. A. MOORE has entered his fifth year as head of the Morgantown schools.

D. A. SHARP has been elected superintendent for a fifth year at New Carlisle.

L. E. McCORD, of Columbia City, has been promoted to the superintendency.

A. L. TRAFELET has been elected for an eighth year as superintendent at Vevay.

C. J. BROWN, of Union Mills, has been a constant reader of the JOURNAL since 1867.

L. M. CONN has returned from Texas and will teach next year at Mooreland.

THOMAS SHOULDERS will occupy the upper room at Hosmer the coming school year.

W. T. MORGAN has been a reader of the INDIANA SCHOOL JOURNAL for the last thirteen years.

A. M. TAYLOR, for several years past at Glenwood, takes the Principalship at Raleigh this year.

O. L. LYON, formerly of Indiana, has accepted the chair of oratory in Albion College, at Albion, Michigan.

J. Z. A. McCAUGHAN, principal of the Kokomo high school, attended the summer term at Indiana University.

ROBERT E. NEWLIN, a graduate of the State Normal and of the Indiana University is superintendent at Gosport.

W. F. AXTELL, superintendent of the Washington schools, spent a part of his summer vacation at Chicago University.

W. B. WOODS, formerly teacher at the State Normal, is now instructor in the Institute for the Blind, at Nebraska City.

H. W. BORTNER, who is serving his third year at Ridgeville has been a constant reader of the JOURNAL for fourteen years.

JOHN L. GLASSCOCK, one of Lafayette's leading teachers went into the army as Lieutenant, but has already been promoted to the position of Captain.

W. O. WARRICK has grown up with Gas City. He took charge five years ago with five teachers; he now has fourteen, and the schools are still growing.

WM. E. ASHCRAFT, of the Normal University, at Chattanooga, has been spending his summer in attendance at Valparaiso. He was particularly after what he could get from Sanford Bell.

H. R. PATTENGILL, of Michigan, has been doing some very acceptable work in Indiana Institutes this season. A great many of our teachers would like to adopt him and make a Hoosier of him.

F. A. MANN, for the past year supervising principal of the Indianapolis schools, has accepted a position in the Normal School at Oshkosh,

Wis. Mr. Manny is a growing man, and Indianapolis sustained a serious loss in his removal.

W. D. CHAMBERS, a well known teacher of Southern Indiana will superintend the schools at Red Key. Mr. Chambers is a graduate of the State Normal and also of Indiana University class of '98.

E. L. HENDRICKS, former superintendent of Johnson County will do post-graduate work in Indiana University the coming year thus qualifying himself to do better educational work in the future.

GEO. W. HOSS, former editor of the JOURNAL, but for many years at the head of a school of Oratory at Wichita, Kan., has recently been elected Professor of Oratory in the Friends' University at Wichita.

GEORGE W. TWITMYER, of Bethlehem, Pa., did some work this season in Indiana institutes. From the reports received it is probable that hereafter he will do still more work. Mr. Twitmyer is a genial gentleman and his work is spoken of in high terms of commendation.

R. W. P. NOBLE, teacher of science in the Crawfordsville high school '94-'97, has just completed a twelve months' course in the graduate department of chemistry in Chicago University. Mr. Noble will go to Vincennes University next year as instructor in the natural sciences.

C. L. HOTTEL, was given a grand banquet by about seventy of the leading citizens of Portland just before he left for his new field of labor at Columbia City. He can take comfort in the fact that he leaves behind him a large number of warm friends who appreciate him as a man and a superintendent of schools.

E. E. SMITH, formerly professor in Purdue University, later southern agent for D. C. Heath & Co., with headquarters at Atlanta, Ga., has given up his southern home and will settle in Chicago. He will have charge of the educational department of Rand, McNally & Co. His friends will be pleased to welcome him.

F. L. CROW is again in charge of the schools of Jay county. It will be remembered that his election to the county superintendency was contested on the ground that one of the trustees was not a "legal" voter. The case was carried to the supreme court and he lost. He at once turned over the office to the former incumbent, who held over. Under a late decision of the courts another election was held by the township trustees and he was elected again and now has possession of his office.

FRANK L. JONES, of Tipton, secured the nomination of State Superintendent at the recent meeting of the Republican State Convention. Mr. Jones is a young man, but has had wide experience in many lines of educational work. He is a graduate of both the Normal School and the State University. He has taught in Kokomo, Noblesville, Indianapolis, and at the time of his nomination, was Superintendent of the schools at Tipton. Being elected he will bring to the State Department, not only the results of his experience, but great strength as an organizer and executive officer.

GEO. W. NERT, for the past five years superintendent of Spiceland academy and the Spiceland public schools, has accepted the position of instructor in pedagogy in the Northern Indiana Normal School, to take the

place of Sanford Bell, who is away on a leave of absence. Mr. Neet is one of the best qualified men in the state for this particular place. He is a graduate of the State Normal School and spent a year at Indiana University. He has taught in all grades of schools, including the high school and academy, and has always been eminently successful. He is not only a superior teacher but a superior man.

ARNOLD TOMPKINS recently made an address before the American Institute of Instruction. This is one of the oldest and most noted educational bodies in the United States. It holds annual meetings and is supported by the best educational talent in New England. The *New England Journal of Education* says of the address: "Dr. Arnold Tompkins of the Illinois State University gave one of the most brilliant addresses to which the Institute has ever listened." It also adds in regard to a former Indianapolis superintendent: "Horace S. Tarbell, LL. D., was the philosopher of the occasion. No New Englander is more admired, and no words spoken at Conway were wiser."

COMPLIMENTARY TO INDIANAPOLIS.

The June number of *Art Education*, published in New York, has a comprehensive article entitled, "How Indianapolis Raised an Art Fund." It declares that the arts and crafts exhibition of Indianapolis was the most extensive and successful campaign for the purpose of school decoration that was ever carried on; and for the benefit of its readers it gives a full account of it, adding:

"This movement initiated in Indianapolis will undoubtedly spread. In union there is strength. Art education in the public schools can attain its highest possible development only when intelligently and sympathetically supported by the public."

TESTING BRAKES AT PURDUE.

President Smart, of Purdue University, reports to the Governor that the associated railroads of the United States have decided to remove their brake-shoe testing plant to the university laboratory. The plant, he says, will be installed in a few days. He further reports that he has been informed that it has been decided to remove to the university the Altoona plant for the testing of other brake appliances, including receivers, triple valves, air pumps and the like. The apparatus, he says, will be large enough to test the appliances of 100 freight cars at once. President Smart, commenting on the acquisitions, says: "This practically centers the official railway testing in the United States within the State of Indiana." Incidentally, he remarks that the removal of the testing plants to the university will bring the institution considerable revenue, and will be of great benefit to the students.

HORSFORD'S ACID PHOSPHATE

Delicious Drink

with water and sugar on y, makes a delicious, healthful and invigorating drink.

Allays the thirst, aids digestion, and relieves the lassitude so common in mid-summer.

Dr. A. H. Henry, New York, says:

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BOOK TABLE.

"PROSPECTING THE KLONDIKE," and "Who Discovered the Klondike?" are the titles of two richly illustrated articles that will appear shortly in *Harper's Weekly*. They are written by Tappan Adney, the *Weekly's* special correspondent, who has been in the gold regions for the past year and has had therefore ample opportunity to study his subject.

No. 124 of the *Riverside Literature Series* contains "Baby Bell, The Little Violinist, and other Verse and Prose," by Thomas Bailey Aldrich. Besides the poems and sketches mentioned above, the book includes "Friar Jerome's Beautiful Book," the "Ode on the Unveiling of the Shaw Memorial on Boston Common," and other well-known poems; also several prose sketches, among them "A Christmas Fantasy," "The Cruise of the Dolphin, etc. The book is equipped with a biographical sketch and notes. Paper covers, 15 cents. Dryden's "Palamon and Arcite, and other poems" has appeared in the *Riverside Literature Series*, carefully edited with notes. The title poem is required for admission to College for the years 1899 and 1900.

AUNT MARTHA'S CORNER CUPBOARD by Mary and Elizabeth Kirby. Chicago: A. Flanagan. Aunt Martha's Corner Cupboard contained tea, sugar, coffee, salt, currants, rice and honey, besides the dishes out of which one is accustomed to eat and drink these articles of diet. In story-form, Aunt Martha tells her two nephews, who are idle and uninterested boys at school, first, how pottery is made, giving the Chinaman credit for original manufacture and then she makes in their presence and for their instruction and pleasure, tea and coffee, at the same time telling where and how each grows and detailing the manner in which it is prepared for market, etc. The story of rice and honey is told in the same entertaining way and the two boys are highly entertained. Aunt Martha proved to be a *true teacher*, so arousing the interest of these boys during their visit with her that they returned to school and really became industrious students. The book can be admirably used either for supplementary reading or for science work in school.

SPANISH-AMERICAN BOOKS, published by the American Book Co., Cincinnati, Chicago and New York. The Spanish-American war has aroused such a general interest in the study of the Spanish language, that the American Book Co., always enterprising, has issued a series of books for the benefit of persons who wish to study along this line. 1. Monsanto and Langueuillier's Practical Spanish Course is a stout volume and provides adequate instruction in the grammar of the Spanish language with a very large number of exercises for practice. 2. McGuffey's Spanish-English First Reader is excellent for those who wish a quick-speaking acquaintance of the Spanish language. 3, 4. First and Second Spanish Books by J. H. Worman. These are on the Natural Method and will be found most satisfactory to those who wish a working knowledge of Spanish. 5, 6, 7. The Spanish Readers, graded, proceeding from the simplest elements in Book I to selections from the classic writers of Spain in Book III. The island of Cuba is represented by twenty-one writers, the extracts illustrative of Cuban life and manners. The books are provided with excellent vocabularies.

THE MEANING OF EDUCATION, by Nicholas Murray Butler. New York: McMillan Co. Professor Butler holds the chair of pedagogy in Columbia

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University and in this volume brings to bear upon some of the most practical questions in modern education a vital and illuminating philosophy. This volume includes chapters upon the following subjects: "The Meaning and Worth of Education," "What Knowledge is of Most Worth?" "Is There a New Education?" "Democracy and Education," "The American College and the American University," "The Function of the Secondary School," "The Reform of Secondary Education in the United States." In the chapter headed "Is There a New Education?" Professor Butler discusses and applies at some length the two Herbartian principles of *apperception* and *interest* which are rapidly becoming the psychological foundation of our modern education in the primary and secondary grades—and which he believes are capable of an extended application in higher education. The volume is of great interest not only to professional teachers but to everyone who has the interest of children, his fellow men and his country at heart.

FOUR AMERICAN PATRIOTS. By Alma Holman Burton. Werner School Book Co., Chicago. Price 50 cents. This is uniform with "Four Great Americans" and is one of the Four American Series, edited by James Baldwin Ph. D. It is adapted for supplementary reading in the fourth, fifth and sixth grades. The four Americans considered as patriots are Patrick Henry, Alexander Hamilton, Andrew Jackson and U. S. Grant. In the story of Patrick Henry, the author narrates in a most interesting way the events which lead up to and immediately follow the Declaration of Independence. In the story of Alexander Hamilton is given, in a very happy manner, an account of the war for national independence and the framing and adoption of the Federal Constitution. In the story of Andrew Jackson, the development of the great west and the war for commercial independence, in 1812, are entertainingly treated. In the story of U. S. Grant, the author briefly but skillfully narrates the history of the expansion of territory to the Pacific coast by the Mexican war, and concludes the volume by a sketch of the war for the preservation of the Union, in which General Grant was so conspicuous a figure.

STORIES OF STARLAND by Mary Proctor. Published by Potter & Putnam Co., New York. Cloth. 186 pages. Price 50 cents. Richard Proctor, the mathematician and astronomer, was widely and favorably known throughout the country as a versatile writer and a brilliant lecturer. His daughter, Mary Proctor, is a writer and lecturer to children. She gave a course of popular lectures in Chicago during the Columbian Exposition and since then has lectured in nearly all the large cities of the United States. She is especially happy in her talks to children on the wonders of the heavens. Her *Stories of Starland* is her first book. The book contains the great truths of astronomy about which most people know so little. These truths are so clothed and interwoven in story that the reader is led entranced as through a fairy land. "The Story of the Giant's Son;" "A Ramble on the Moon;" "The Planet Mars and the Baby Planets;" "Story of Jupiter and his Moons;" "Comets and Meteors;" "God Bless the Star," are some of the chapter headings. The book is fully illustrated, the typography is excellent and the binding attractive. It is a book a child will read with pleasure and profit.

BIRD STUDIES, By William E. D. Scott. New York and London. G. P. Putnam's Sons. This book is a very attractive invitation to cultivate the acquaintance of the land birds of Eastern North America. The birds are treated according to their habitats; the headings of different divisions being: "About the House," "Along the Highway," "In the Woods," "Across the Fields," "In Marsh and Swamp," "By Stream and Pond." And so the author takes us with him from our homes, along the highways, through the woods and across the fields to the brooks and ponds with their marshy surroundings. We make the acquaintance of the whole feathered tribe in good company and in these separate chapters will be found answers to most of the

inquiries an earnest student of birds might make. The birds are portrayed by word and picture; their gorgeous colors are not portrayed nor have their sweet songs been caught and imprisoned. These the student must see and hear for himself. 165 illustrations taken from photographs ornament the 350 pages. Most of the birds photographed belong to the author's own collection. In preparing the text, the author has made use of original notes based on field work and compiled during the past thirty years. The standard works on North American Birds have been carefully consulted to secure accuracy. It is believed that all the kinds of birds known to occur in the area dealt with, down to Nov. 1897, are included in this book. Price, \$5.00.

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TRUE LIFE OR LESSONS ON THE VIRTUES FOR OPENING SCHOOL is the title of a new book, for which there will be hearty welcome among a large number of teachers. This work meets the requirements of all grades, and contains valuable and attractive material for opening school each day of the year. W. R. Houghton, of Connersville is the author. The volume is neatly bound in cloth and is published by the Fayette Publishing Co., Connersville, Indiana. Ready in September. Price, 50 cents.

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INDIANA SCHOOL * JOURNAL

VOL. XLIII.

OCTOBER, 1898.

NUMBER 10.

BIRD STUDY IN THE SCHOOLS.

GEO. L. ROBERTS, SUPERINTENDENT GREENSBURG SCHOOLS.

In approaching this subject the first question that is raised is, "Why should we wish to do nature-study work or teach the different branches of natural history in the elementary schools. We can easily see two answers to the question: either it is for the sake of imparting the subject itself or for the sake of the one who makes the study. Stated in another way, we may say that when one thinks chiefly of his subject, he teaches science purely, when his chief thought is the being taught he teaches nature-study. In the latter case the sympathies are broadened, the individual is made to touch the world at more points, and the imagination is quickened, thus giving a deepening and intensifying influence to life.

The mind in the child does not reach out after statements made in some book but it does reach out and attach itself to the natural objects themselves. This work should be carried on in the schools because it takes up the child where he is, and makes use of the material that he already has before entering the school-room. Agassiz expresses it by saying "children are born naturalists," and the truth of his statement is made evident if this tendency is not destroyed by the conventionality and artificiality of the schoolroom. Here, too often, he is taught only to remember the words and ideas of others.

The fundamental notion that he must be taught love for every branch of knowledge, can be attained by developing and encourag-

ing an intense love of nature. President Eliot in his Brooklyn address on the "Function of Education in Democratic Society," says: "While the familiarity with the tools of education is being gained, the capacities for productiveness and enjoyment should be trained through the progressive acquisition of an elementary knowledge of the external world. The study of nature should begin in the very first grades, and all its teachers, therefore, should be capable of teaching the elements of physical geography, meteorology, botany and zoology, the whole forming in the child's mind one harmonious sketch of its complex environment. This is a function of the primary school teacher which our fathers never thought of, but which every passing year brings out more and more clearly as a prime function of every instructor of little children." Only moderate effort is required along this line, the chief thing being to so direct the work as not to stand in the way of the child and thus hinder him in his natural tendencies. The very law of mental development makes the child more interested in natural objects; he is more interested in the things that immediately surround him; his mind is empty at first and his concepts must come through the senses, consequently his knowledge must be presentative; he learns to emphasize *doing* rather than *knowing as dependent upon authority*; he is at once supplied with open air exercise and recreation; and lastly, when considered from the utilitarian standpoint he gains more from this subject than from any other.

Bird study is one of the many lines of nature-study and whatever may be claimed for this subject as a whole, may be claimed for bird study as one of its component parts. Bird study is one of the lines that pays large dividends requiring as capital a keen eye, a quick ear and intelligent patience. Given these three and all things else in bird study shall be added.

One of the purposes of the Indiana Audubon Society is to discourage the destruction of birds and stimulate in every way the disposition to protect the birds of our State. It does seem that no one means can accomplish so much toward that end as the study of birds in the elementary schools. The greatest foe to our native birds in the smaller towns and cities is the average small boy with his ever present companion, "the nigger shooter." His constant practice soon makes him an almost unerring marksman, and the little birds become the objects of his skill. Not only is this true,

but there are many who seem to have a well developed mania for robbing and destroying birds' nests,—some out of pure wantonness and others giving the shallow excuse that they are collecting eggs. The disposition to engage in this destruction can be overcome in no way so effectively as by a sympathetic study of the gay little creatures that frequent the shade trees, the door yards and gardens ; thus coming into an acquaintance and championship that insures protection from those who have been their foes. I speak thus confidently on this point because of my observation of the results obtained from the course of bird study introduced into our city schools by the late Superintendent Shannon. I believe it can truthfully be said that no city of its size in the State had a greater number of bird enemies, of the kind described above, than had our little city, but at this time the condition is very different.

The work was begun in the spring by calling attention to the first bird arrivals. Each pupil was directed to choose some bird that would remain in this locality all summer and to keep a careful record of observations made of it during the period of its stay. These observations include such items as the time of first arrival, when next seen, how many, when did it become common, when did it begin its nest, the materials used, the number of eggs, did both birds sing, care of the young, food, when was bird last seen, etc. This work comes largely during the vacation and only requires a very little time on the part of the teacher in the spring and fall to keep it alive by asking a question or two each morning.

I shall quote briefly from some compositions prepared by pupils who have carried on this line of observation work with birds.

THE CATBIRD.

On April 16th I saw two catbirds, a male and female. I saw no more of these birds until the 19th, and then I saw four. After this they began coming in pairs until on the 24th they were rather common. Although in my note book I marked them common on the 24th, yet it was four or five days before I found a pair beginning to nest in an apple tree not far from home. The limb on which the nest was built was not far from the ground and it did not require much effort to reach it. In a short time two other boys and myself found in the nest five eggs of a greenish blue color and about the size of a robin's egg. In about ten days,

on May 6th, the female began sitting. The eggs were hatched about May 19th, and about the 26th the young ones left the nest. The male did very little work in building the nest or in feeding the young, but once in a while he sat on the eggs while the female was hunting insects and worms. The male, however, sang all summer and was a considerably better singer than the female.

THE CHIPPING SPARROW.

The chipping sparrow was first seen on March 10th. I saw about a half dozen. They were next seen on Wednesday, March 11th, and became common on March 14th. The pair that I selected began to build their nest on April 13th. There were four eggs of a light blue color with little brown specks. The bird began to sit on April 20th and the birds were hatched on May 4th. They began to leave the nest along towards the last of May. The nest was made of hair, grass, feathers, thread, string and leaves. It was in the fork of a cedar tree. Both the male and the female sang and the male helped to build the nest, sit on the eggs and feed the young. The parent birds still cared for the young ones after they began to fly. I have seen the parents feed the young such things as worms, small insects and crumbs.

(The first one given above was prepared by one of the boys, the second by one of the girls in the grammar grades.)

I have observed several boys, hitherto sullen and stubborn, who upon the introduction of this work, took hold with intense interest and soon came to rank with the best in the grade in all lines of work. They became friends of the birds as well as of the school which had at last found the thing in which the boys could be interested and that would bring teacher and pupil into sympathy and harmony. At this time there is no special effort being put forth to keep this work going, but the children, for the most part, are very much interested and scarcely a day passes but that many calls are made upon the teachers and myself by boys and girls who wish to ask some question or to give account of observations made. This friendship for the birds will operate against the use of them for decorative purposes. It puts a protection over every bird's nest in door-yard, garden or grove, and if such work is carried on in all the schools of our State and of other states, it will effect far better bird protection ultimately than can be secured by legislation.

THE SCHOOLS OF HAWAII.

H. H. BRODIE.

There are two classes of schools, government or republic and private. According to the recent report of the minister of public instruction, there are 132 public schools, with an attendance of 10,542 pupils, and 60 private schools, having 3,954 pupils. All public schools are under the direction of a board of education, consisting of the minister of public instruction and six members. These officers are residents of Honolulu, meet once a week, and receive their appointment from the president.

The ignorant, heterogeneous, non-citizenship population, would make district organization a miserable failure.

The large private aid given to education is due to the benevolent missionary spirit which first brought the islands under civilization.

The number of teachers in the public schools is 298 ; in the private schools, 209. The percentage of male teachers is 41.3 per cent, with an average monthly salary of \$74.55 ; the percentage of female teachers is 58.7 per cent, with a corresponding salary of \$55.18. The average number of pupils per teacher is 35, educated at an annual cost of \$21.17 per pupil.

It is interesting to note our cosmopolitan population. The number of pupils of different nationalities is as follows : Hawaiians, 5,330 ; part Hawaiian, 2,479 ; American, 484 ; British, 280 ; Germans, 302 ; Portuguese, 3,815 ; Scandinavians, 106 ; French, 2 ; Japanese, 560 ; Chinese, 1078 ; South Sea Islanders, 10 ; other foreigners, 76.

There is a compulsory education for all pupils between six and fifteen years of age, and as a result, the yearly per cent of attendance is 92. Quite a number of schools, favorably situated, have an attendance of 97 per cent. The government employs sixty truant officers to enforce attendance.

Teachers have little to complain of ; their position is practically a permanent engagement ; *i. e.*, they are not employed under yearly contracts. There are three terms, aggregating thirty-nine weeks. At the end of each of the calendar months, the teachers receive their pay. School begins at 9 A. M., and closes at 2 P. M., having a recess of fifteen minutes and an inter-

mission of thirty minutes. Another attractive feature is, that the government furnishes cottages for the principals, which are shared, when convenient, with the assistants.

The location of the islands, there being four of the larger ones separated by twenty-five to seventy-five miles of water—makes frequent inspection difficult. The inspector-general aims to visit each school one day in the year, besides attending to his other duties. Beyond this, it is an exceptional occasion for any school to receive a visit from a school officer. As a rule, the teachers feel this trust, and realize the responsibility resting upon them.

Each island is divided into districts, or townships, which have their local teachers' associations, and each island has its yearly association. All unite in a national association, held annually at Honolulu.

All the school buildings are frame, one story, and surrounded with a spacious, grassy yard of rarely less than one acre, which is enclosed by a board fence, usually whitewashed. Nearly all of the schools are supplied with hydrant water, and favored by a liberal number of shade trees. On account of the climate, doors are kept open throughout the day, and pupils rarely wear shoes, which is a great relief to teachers.

Our motley mass of pupils may shock some teachers, but I can assure the readers of *The School Journal* that the teachers enjoy their work as well here as anywhere, and have less trouble. Discipline is very easy. These children don't possess that restless, mischievous nature that is met in the Anglo-Saxon child. They are pliable, courteous, if taught to be, and aid the teacher in all possible ways.

Unlike American pupils, the pupils do all the janitor's work, clean yards, whitewash, etc. While their clothing is cheap, they are careful to have it clean and neat. Not as great progress is made as with Anglo-Saxon pupils, but it must be borne in mind that they know, and can speak two languages, one of which is learned at school, and through this imperfectly understood medium they acquire all their learning.

To see 7,000 people of the Teutonic-Anglo-Saxon blood controlling and Anglicizing over 100,000 people, gathered from the four quarters of the earth, is an heroic work, but our kindred across the ocean must look with pride upon what their blood can

do. Rarely, if ever, has there been a more signal example in history where a people, one by one, have entered a strange land, acquired the government without bloodshed, imported labor from all sections of the globe, and then changed this heterogeneous mass into unity, more completely than is being done here.

Foremost in accomplishing this work is the Inspector General, H. S. Townsend. Energetic, progressive, tireless in his efforts, with tact for the many difficult duties, he is eminently fitted for his position. Nor is the board a political body, but each member is appointed solely for his or her fitness for this responsible office.

With a normal school supplying us with teachers, and a summer school that has just closed, with Col. Francis W. Parker in charge, as conductor, the old methods are giving away to the progressive spirit of modern education.—*N. Y. School Journal*.

Hanapepe, Hawaii Islands.

THE NEW EDUCATION—A REPLY.

L. ANNA PITTS.

In the article by D. I. Wise transferred to the June number of the JOURNAL, he draws a quaintly amusing picture of the newest education as he sees it, and says he would gladly see another view.

He compares the child mind in the process of development to a house in the process of building. His idea seems to be that education should progress as house-building, that is, some parts should be finished before others are begun. We are left to infer how many and what subjects should constitute the primary course, but evidently much that is now therein included should be left to the higher grades.

I would suggest to the writer, and the readers of the JOURNAL, a vital correction in his view, by emphasizing the contrast in the two processes.

Mind is organic, hence can grow only through its own activity. The builder of the house may prepare and add his materials at the direction of an architect without even comprehending his design. Or as in the case supposed, the architect may be the builder and (contrary to the illustration) systematically select and fit together his materials so that his purpose is fully realized—a structure of worth and beauty.

The teacher, like the architect, must comprehend the purpose of education and in the height of that purpose—upon her knees perhaps, but not by “matching pennies in a corner”—select and prepare her material, the subject matter—but *her* house must build itself. She can only direct or as some one aptly puts it, remove the obstacles in the way of the child's *self-development*.

This granted for the present, the question is how much exercise ground must be given the little child in the first grade, or to keep more closely to the figure, how many kinds of material can he assimilate? We will dig and lay the foundation first, and while securing the required depth will also make it broad enough to support the superstructure. But we will not leave the plumbing and masonry here and “fly to the roof to nail on a shingle,” no, not till the studding has grown and the rafters are placed to nail it to.

The building to be erected is character and we must consider that all the noble traits which are to appear in the superstructure—man, are already here and must be allowed to develop, must be firmly imbedded in the foundation through the mental habits formed. The writer seems to fear that the little one will get all there is in history, botany, zoology and astronomy and “leave nothing to be new in the grammar grades” or for “a revelation in the high school.” Upon second thought however he will agree that no one of the subjects he mentions can be so easily exhausted. There will ever and always be something new in them, and it is the teacher's business to make the child thoroughly conscious of this and send him out of the high school still seeking something new in the same subjects he has been thinking about for eighteen or twenty years—before and during his school life.

It would be beneficial to discuss each of the subjects mentioned as to its fitness and the degree of fitness for use in the first grade. Since such a discussion can only be touched upon here, I will content myself with quoting Professor Dewey, of Chicago University, in the June number of the *Educational Review*. He says: “Its (the school) object is to initiate him into the technicalities of intercommunication with his fellow men and familiarize him with the ideas that underlie civilization and which he must use as tools of that if he would observe and understand the phase of human life around him.” He says further: “As re-

gards subject matter he must recognize five co-ordinate groups. All of these groups must be represented at each stage of education." He speaks of these groups as five windows of the soul, two of them looking out upon nature and the other three "upon various aspects of human life," so that about the ground indicated in the introduction of the article under discussion is covered.

Again we recur to the child, for we have assumed that he is the determining center. For *him* the school exists. Not for the purpose of employing teachers to put in practice a pet theory, or adhere to a certain method, not even to experiment on a new fad. But let us see if the New Education is a fad or if there is in the nature of the child a warrant for its extended curriculum. Watch the little one under school age at home or in the kindergarten. In how many different subjects is he interested and for how many consecutive minutes does he apply himself to any one of them?

It will be found that he is far from being a stranger to any one of the subjects in the present school course except the purely technical. The printed page or symbols anywhere are new to his eye. He is interested in physical geography because he can *observe* the formation of dew, frost, rain, clouds, etc.; in the little bit of practical astronomy which shows him how to look for the causes of day and night, winter and summer, why the moon doesn't shine *every* night; and many more such puzzling questions. Then he has the basis for another geography lesson in showing the effect of all this on plant and animal life and lastly upon man.

Every one has noted also his intense interest in the pretty little nature myths of some ancient people. And he is just as interested in these ancient people as far back as the Aryans and Persians when he is led to see the growth of their ideas.

He *grows* mentally in all this, and why not let him? It seems tragical to me to lull the naturally inquiring little mind to an almost death-in-life sleep before the end of his first year in school. Everything in the atmosphere of some school rooms is conducive to this. But in others, I am glad to say, he remains actively awake, because he is lead largely to answer his own questions as they arise, often by the intelligent asking of others.

He is morally strengthened, too, by every use of the "tools of thought" thus acquired.

Peru, Ind.

PRIMARY DEPARTMENT.

*This department is conducted by Miss Anna Brochhausen, Critic Teacher
in the Indianapolis Schools.*

A SUGGESTION FOR BIRD DAY.

It has been thought best to postpone the article on geography promised for this month, to give a few thoughts on Arbor and Bird Day.

The various celebrations held during the school year have become such a fixed custom, that it seems natural to hear earnest teachers express themselves enthusiastically about a "new idea" which they intend carrying out at the Thanksgiving entertainment, or thus: "I'm anxious for Christmas! I believe I can help the children enjoy it more this year;" or, "I've been planning for May-day. Of course you are going to have a spring festival?" Undoubtedly, everyone is glad to see this growing spirit of helpfulness among the teachers, this spirit of "living with the children" which is the true spirit of teaching. Gradually one other celebration has been making a way for itself into the school course. The need of an autumn nature day has been felt, and now since the State Executive manifests an interest this celebration, too, has come to stay.

Since these entertainments have become part of our school work, they must have an educative value. The idea that they are merely entertainments is a false one. Are they not but the expression of the belief that "education should lead and guide man to clearness concerning himself and in himself, to *peace* with nature and to unity with God?" Is it not but a means towards helping the child to realize that "in all there rests, works, and reigns an eternal law?" That the child may feel this spiritual meaning in these entertainments, they must be an outgrowth of the continued work of the school-room.

What work will lead toward this end? First of all, a close touch with Mother Nature herself. Take the child into the woods where man has done little to change the appearance of nature. Is it unity with bird life which you wish to bring about? Then after the class has tried to answer such questions as: What kind of birds are still with us? Where does each of these build its nest? What kind of a tone does it make in the fall of the year?

How does this differ from its spring song? In what month did it come to us? Has its plumage changed at all, and in what way? etc., the children should be taken to the woods to ascertain for themselves the answer to such questions as remained unanswered. Take some dry bread along.

Arrived in the woods, let not the teacher herself call attention to the particular birds immediately. There will be enough such such exclamations as: 'There's a woodpecker! There's a blue-bird! etc. Let the children first get into the spirit. It is best to take this trip as early in the morning as possible, before that ecstasy of joy expressed by our feathered friends in the morning hour, is all gone. The very nature of the child will answer to this buoyancy. Fortunate, indeed, will be the school that has the pleasure of seeing a large number of birds frolicking in and near the water. Keep the children far enough away so as not to disturb the birds, yet so that they may see and feel the happiness expressed. Now is the time for a poem. No doubt, the children feel like singing with Stedman:

AUTUMN SONG.

No clouds in the morning sky
The vapors hug the stream—
Who says that life and love can die
In all this northern gleam!
At every turn the maples burn,
The quail is whistling free,
The partridge whirrs, and the frosted burrs
Are dropping for you and me.
Ho! hilly ho! heigh ho!
Hilly ho!
In the clear October morning.

Before leaving the spot let some child slip up quietly and scatter some bread crumbs near enough for the birds to find them. Having entered into the spirit of the morning, facts about the life of the birds can be ascertained. The teacher, of course, must have previously made herself familiar with the place, so as to be able to lead the children without waste of time to the homes of some of the birds. Be assured, that the love which now fills the heart of the child will prevent his doing harm. After they have seen the nests of three or four birds, one of the pupils may recite.

BIRD TRADES.

The swallow is a mason,
 And underneath the eaves
 He builds a nest and plasters it
 With mud and hay and leaves.

Of all the weavers that I know,
 The oriole is the best ;
 High on the branches of a tree
 She hangs her cosy nest.

The woodpecker is hard at work—
 A carpenter is he—
 And you may hear him hammering
 His nest high up a tree.

Some little birds are miners ;
 Some build upon the ground ;
 And busy little tailors, too,
 Among the birds are found.

—Selected

Then the questions: What kind of birds are about your home? Where and how do they build their nests? will give the aim for the work which the children are to do alone.

Having seen this poetic side in life, the great value of birds to mankind may be told. The Song Bird's Petition may be read to the children and though the teacher cannot hope to lead every child to live all that is contained in the instruction she gives, and in the stories of birds, read to and by the children, yet if the seed of thoughtfulness is the one which finds a place in the child's mind, she will have done a great work.

When the stories, the poems, and the instruction of the first seven or eight weeks have led the child to be more observant, and consequently thoughtful, the entertainment is but the expression of his own experience. Then he can truly say :

"I heard a thousand blended notes,
 While in a grove I sat reclined,

* * * * *

The birds around me hopped and played ;
 Their thoughts I cannot measure :—
 But the least motion which they made,
 It seemed a thrill of pleasure."

And without holding previous sermons on the subject, many of the children would of themselves, could they so express it, say:

"Don't kill the birds, the pretty birds
That play among the trees;
'Twould make the earth a cheerless place,
Should we dispense with these."

—(Colesworth's "*Don't Kill the Birds*," *Mary Lovejoy's Collection of Poems*.)

Not only expression in verse and song should be given on this day, but also some deed which will demonstrate the right attitude towards the birds should be done. Some boxes which are to afford shelter to the birds in the winter, can be put up on the trees about the school. Many of the children will carry out this idea away from school. Nor should the idea be dropped after the entertainment. On the first wintry day, when the whole land is covered with snow, let some of the children bring a little bread to school and just before the opening of the afternoon session take the children out to feed the birds. At Christmas have such stories as Christmas in Norway, read to, or by, the children. With the very earliest signs of spring, remind them of some of the things which they were unable to answer in the autumn.

Thus the work of the year is a unit. Education is a continuous development. Many means are employed to bring about the desired end. At times, one of these means is uppermost. But then it is like unto surface ripples. The great wave moves steadily on to the final goal. To be truly educative every effort must have its place and value in the great movement toward the ideal result.

READING.—III.

Illustrations have been given of lessons studied with a class, with different purposes in mind, viz., in the first case, to lead the children to good expression of the thought contained in the sentence; in the second, to aid them in forming the mental picture directly or indirectly described in the story.

The children, having gained some power in such class work, should be given a story for silent study. (See August number of *SCHOOL JOURNAL*, page 515, for suggestions.) The lesson chosen as an illustration this month is, "The Brave Little Hollander," page 121, of *Indiana Second Reader*.

On the board were the following aids:

"The Brave Little Hollander," page 121.

| | | | | |
|-------------|----------|-----------|-------------------------|----------|
| Höl land. | peo ple. | dikes. | hăp pened. | drowned. |
| Höl lander. | | trickling | scarcely (a as in air.) | |

In what country did this boy live?

Why do the people build dikes?

What are dikes?

What happens to these sometimes?

What brave act did this boy do?

What do you mean by a brave person?

What other little friends have we found in our reading whom you call brave? (Notice that the next to the last question is concrete. The *definition* of brave is not asked. It may be stated here, so as to avoid explanation later, that with children as young as these the distinction between courage and bravery will not be made.)

After a recess the class was told to study the lesson. The teacher said: "If you need help on more words than those given above the questions write them on a piece of paper."

The class was given fifteen minutes in which to study the lesson.

When the teacher stepped to the class, the children closed the books, placed them in the right hand corner of the desk, took an upright, attentive position, and the lesson began.

By way of inspiration she asked: "Did you like the story?" The class answered: "Yes ma'am."

T.—Then let us look at the words. Give the first one, Paul.
Paul.—Holland.

T.—Does any one know anything about Holland?

P.—The Dutch people live in Holland?

T.—Yes. Do you know how far it is from us?

P.—It is across the ocean.

T.—How near the ocean do you think it lies?

P.—Right by the ocean.

T.—Why do you think so?

P.—Because these people built dikes to keep the water out.

T.—What do you mean by dikes?

P.—Great walls of sand and earth are dikes.

T.—How would these walls have to be built to keep out the water?

P.—They would have to be built strong.

T.—Why do you think so?

P.—The water would break down a weak wall.

T.—Has any one seen the ocean? (No hands.)

T.—Has any one been to Chicago and seen the lake there?

One pupil had been there and he was asked to describe the motion of the waves on the beach. Then the teacher made the picture more vivid by describing the ocean wave. She used gesture to bring out the idea more clearly. Water-worn rocks were on hand to show the effect of the waves.

T.—Now since these waves are so strong, do you see what would happen if even a very little hole were left but a short time? (Yes, ma'am.)

T.—Take the next word and tell what it means.

P.—Hollander. A Hollander is a person who lives in Holland.

The other words were passed over with but little conversation. Then the teacher asked those to stand who needed help with other words. Six pupils stood. As they spelled the words the teacher wrote them upon the board so that the rest of the class might see them also. She used the diacritical marks and then the pupil got the word for himself. These words were left on the board so that the pupils could look at them if they again needed help when reading the story.

After the six pupils were seated the teacher said: "I have a question to ask about one word in the last sentence. 'He got the hole closed up and thus the land was saved.' What is meant by the word *thus*?" The pupils had not thought of it, so the teacher explained it.—"It means, in this way the land was saved."

T.—As you read the questions to-day you may call upon a classmate to answer the question which you read.

The questions were read by different pupils.

A conversation followed the next to the last question. The pupil called upon to answer it said: "A brave person is not afraid of anything."

T.—Anything is not very clear. Can anyone make it clearer? (No answer.)

T.—What else can you say about this boy beside his being brave?

P.—He was a good boy.

T.—Yes, he was a good boy because he did what was—?

P.—Right.

T.—Now, who is a brave person?

P.—A brave person is not afraid to do right?

T.—How long did this boy sit there?

P.—He sat there all night.

T.—Have you thought what that means? Do you feel how lonesome he must have been? Tell me something about it.

Various pupils helped make this idea more vivid. They spoke of his seeing the stars come out, of the fear which possibly visited him as the night grew dark, and how very tired he must have grown.

T.—What do you think about this act of the boy?

P.—It was hard.

T.—What did we say was meant by a brave person?

P.—A person not afraid to do right is a brave person.

T.—Keep that in mind as you answer the last question.

A pupil read the last question and called on several classmates for an answer.

Brave was applied to Blue-eyes, Fred, in the story of Count Ten, and to the old dog which sprang at the strange dog that tried to get Edith's cake. When asked, "In what way was Fred brave?" one boy said that if Fred tried that all the time, other boys would make fun of him for it, and he thought the boy who practiced it would have "pretty hard work."

The lesson closed here, the reading aloud being postponed until the next recitation. In the reading aloud little or no interruption is necessary, since all explanation was given in the first recitation.

This will be the last of the series of articles on reading unless some teacher would like a lesson reported on a certain story. If such a report is desired the teacher is asked to send in her request before November 1st.

"To sweeten life as we meet and part,

We need but remember this:

To carry always a tender heart

For the tiniest thing that is.

"The wider the circle of love we make,

The happier life we live,

And the more we give for another's sake,

The more we shall have to give."

LEND A HAND.

(This department is conducted by Mrs. E. E. Olcott.)

*"Look up and not down,
Look forward and not back,
Look out and not in;
Lend a hand."*

TALKS WITH INEXPERIENCED TEACHERS.

NUMBER WORK.

My Dear Young Friends:

Although there is much more that I wish to say about reading, I will leave that subject for the present, because possibly you are at work on the problem, "How shall I present number work to my first year B class?" and I should like to lend a hand there just where you feel that you need it.

'Tis true that those whose schools opened early in September will have passed over part of the work of which I speak, but they may find the suggestions helpful in "bringing up" the new pupils who are sure to enter, while those teachers who begin work this month will find the discussion of the first lessons very timely.

Before talking of methods and devices, we might consider whether it is best for you to give your B class "lessons in arithmetic" during the first half year. You see I make it personal, "best for *you* to give *your* B class lessons in arithmetic." Many eminent educators believe that number work, except some purely incidental work, should be omitted for months. In cities and large towns this may be the most satisfactory. But those teachers have a generous supply of busy work material, a superintendent to advise them, a long term of school, and virtually no need to consider the opinion of the parents in the matter.

How is it with you? Have you paper, colored pencils, paints, and a supply of scissors at hand? Can you give a lesson on Hiawatha and have the class fold paper canoes or paint wigwams? Can you give a science lesson and set the little ones to cutting out paper starfish? Can you send the class to a sand table and give them clay for modeling? If not, what work have you for them? Won't you need to fall back on some lessons as attractive as possible, but still lessons, in arithmetic as well as in reading and writing? Not every school can discard one of the "three R's" for half a year.

Besides, if you have other grades in the room the little ones will really desire "to do work like the big scholars do." Just as the little girl likes to have a little broom and sweep as big sister does, so she will wish to "do sums" because big sister does them. For the same reason, the B class take real pleasure in making figures. Isn't that a reason for teaching them? If the pupils will in the near future need to know how to work figures, if they can learn more easily now than later, if they enjoy making them, why should not figures be taught?

It was the sad abuse not the use of figures that led to their omission in the early number work in many places. But why should a child think that the figure 3 is the number three any more than he thinks the word cat is a real live pussy? Why can't he realize that one is a symbol as well as the other? Then, too, the teacher in the country has to weigh the opinions of the patrons, and the latter understand the value of figures and "sums" when they may be skeptical about paper cutting or illustrating Hiawatha. They will be more likely to appreciate lessons in science and literature if you have some "homespun" work, too.

Let us glance a moment at the Ratio Method. Its influence is spreading far and rapidly, it is introduced into more and more schools. The late Dr. A. E. Sheldon said of it: "I believe it is destined to revolutionize methods in arithmetic." The verdict of even its critics is that it is a step in the right direction. Therefore, read all you can about it, visit schools where it is used, if possible experiment carefully with it in your own teaching. You know some wise person has said that evolution, not revolution is the best kind of progress. So be evolving that you may not need to "revolute" if you should some time be required to teach ratio with a capital R. Speer's primary arithmetic is the best ground work for studying the method and such articles as the recent excellent ones in THE JOURNAL by Miss Brochhausen will help to clear away the mists surrounding it.

But in this talk I think of you inexperienced young teachers who would be "all at sea" in teaching a method so radically different from any you are familiar with, to whom the Speer blocks, which are essential to its presentation, will not be furnished, and who probably cannot afford the \$3.00 or \$3.50 it costs to buy or have them made. You, therefore, must depend upon some other

method, and so of other methods I will speak. As in reading, so in number I advise using the eclectic method. The general plan I suggest is largely based upon Dr. E. E. White's teaching. I think the ratio method will be modified and combined with points from others, just as something from Grube will survive the severest test of time.

Let us fancy that this is your first number lesson with your beginners.

Purpose: To ascertain the number knowledge of this class, especially to test their ability to recognize groups of objects as wholes.

Material: Wood splints or sticks which may be held up before the children, also small objects like grains of corn, cantaloupe seeds, shoe pegs, blocks, etc.

If possible gather the class around a table, if not lay material on each desk.

Working "along the line of least resistance," let the children match number groups, name groups, and select groups from the name. Holding up two splints, say: "You hold up as many as I do," *i. e.*, match the number. Each child holds up two; some child will name it, *i. e.*, tell how many it is. Then you say: "Put all your sticks into twos;" one child may use sticks, another pegs, etc.

Do not ask how *many* groups even though you know some child may readily count them, because as Mr. Speer urges, seeing or counting "by ones" is to be avoided. You do not wish the child to "count up" to find there are five in a group any more than you wish him to spell h, o, r, s, e, before pronouncing the word in reading. He is to think *five* from seeing the group of objects just as he thinks *horse* from the group of letters.

So I say, "at first do not count by ones at all, but teach the pupils to see single and united groups. When the pupils have made groups of twos, then double the number. Hold up two sticks in each hand, place close together and have the children match the group. Lead them to "feel" the two twos rather than lay stress on their *saying* it.

Let some child give the name, four, then all make groups of fours. You may have part of the class arrange groups of twos and the rest fours and then recite:

"I have made my sticks in twos"

My pegs are in fours.

It may be that this is as much as you can give in one lesson, and the desk work may be to arrange pegs in twos all around their slates. If the class is large or the children timid the lessons should be short, but if it is small so that individuals may be reached easily or the children self-reliant twice as much may be given. Therefore, I will suggest the grouping, leaving you to assign what your class needs.

Pupils quickly see *double* groups as two twos, two threes, etc. After work with the four-group, hold up three splints. Do not present it as two and one but as a whole. Have the three matched then named and then three-groups with material shown. Next double three by holding up three splints in each hand, have it matched and named and the group shown with different objects. Encourage them to *quickly* show groups of six or four by taking a three and a three, or two twos. They thus learn to combine groups so quickly that it becomes unconscious.

Let them learn five as a single group, at first arbitrarily arranged as the dots are in five on dominos. Instead of presenting five with sticks hold up the domino, five and blank, or draw rings so arranged on the blackboard. The children are to place the seeds or pegs similarly.

Present eight as two fours, and nine as three threes.

Most children learn to see seven as six and one more readily than as three and four. Ten is seen as double five, and twelve as two sixes.

Omit eleven for months. I would give twelve because it is a *dozen* and because it can be separated into so many even groups. The groups have been presented in about this order:

2, 4, 3, 6, 5, 8, 9, 7, 10, 12.

For drill in groups, "Aids to Number" (first series from 1 to 10), by Anna Badlam, published by D. C. Heath & Co., price 25 cents, is excellent.

Long before all the groups have been presented, begin telling number stories in addition and subtraction and having them illustrated by drawings, however crude. A child may recognize nine as three threes and may readily select nine objects before he can count consecutively that far by ones. He can draw three maple trees with three leaves on each and *know* there are nine leaves because there are three threes.

Do not be *afraid* to follow these suggestions, because you have supposed you must adhere to the Grube Method ; I assure you that your class, traveling a pleasanter road, can do all and more by the end of the year than the class which *had* to learn all about three before they could touch four.

All ye who have groaned in spirit over a recitation something like this :

" There is one, two and three——"

" No, no, Tom, (Dick or Harry !) try again."

" There is one, two and—and one in three more——"

" No, dear, there is one *two*, don't you see these two blocks? and one more—here it is—in *three* !"

All ye, I say, who have felt *weary* over such work, rise up and testify that those coming after you may be spared !

THE BIRDS' PETITION.

It will soon be time to buy winter hats, and the question whether they shall be ornamented with birds killed for that purpose, will arise. Suppose a few minutes should be taken during a recitation in history to read " The Massachusetts Bird Law " to the whole school, for this is as truly a matter of history as is Paul Revere's Ride.

THE MASSACHUSETTS BIRD LAW.

A law has been passed for the protection of birds in Massachusetts, which forbids the use of certain birds for millinery purposes.

The petition begging that a bill of this character might be framed by the state senators was drawn up by United States Senator George F. Hoar.

The petition was supposed to come from the birds themselves and to be signed by thirty-five song-birds. It was written in such a delightful manner that it roused the interest of the Massachusetts Legislature, and the desired bill was prepared and passed in an astonishingly short space of time. The following is the bill :

To the Great and General Court of the Commonwealth of Massachusetts :

" We, the song-birds of Massachusetts and their playfellows, make this our humble petition. We know more about you than

you think we do. We know how good you are. We have hopped about the roofs and looked in at the windows of your houses you have built for poor and sick and hungry people and little lame and deaf and blind children. We have built our nests in the trees and sung many a song as we flew about the gardens and parks you have made so beautiful for your children, especially your poor children, to play in. Every year we fly a great way over the country, keeping all the time where the sun is bright and warm. And we know that whenever you do anything the people all over this great land between the seas and the great lakes find it out, and pretty soon will try to do the same. We know. We know.

"We are Americans just the same as you are. Some of us, like some of you, came across the great sea. But most of the birds like us have lived here a long while; and the birds like us welcomed your fathers when they came here many, many years ago. Our fathers and mothers have always done their best to please your fathers and mothers.

"Now, we have a sad story to tell you. Thoughtless or bad people are trying to destroy us. They kill us because our feathers are beautiful. Even pretty and sweet girls, who, we should think, would be our best friends, kill our brothers and children so that they may wear our plumage on their hats. Sometimes people kill us for mere wantonness. Cruel boys destroy our nests and steal our eggs and our young ones. People with guns and snares lie in wait to kill us; as if the place for a bird were not in the sky, alive, but in a shop window or in a glass case. If this goes on much longer we, the song-birds will all be gone. Already we are told in some other countries that used to be full of birds they are now almost gone. Even the nightingales are being killed in Italy.

"Now we humbly pray that you will stop all this and will save us from this sad fate. You have always made a law that no one shall kill a harmless song-bird or destroy our nests or our eggs. Will you please make another that no one shall wear our feathers, so that no one will kill us to get them? We want them all ourselves. Your pretty girls are pretty enough without them. We are told that it is easy for you to do it as for a blackbird to whistle.

"If you will, we know how to pay you a hundred times over.

We will teach your children to keep themselves clean and neat. We will show them how to live together in peace and love and to agree as we do in our nests. We will build pretty houses which you will like to see. We will play about your garden and flower-beds—ourselves like flowers on wings—without any cost to you. We will destroy the wicked insects and worms that spoil your cherries and currants and plums and apples and roses. We will give you our best songs, and make the spring more beautiful and the summer sweeter to you. Every June morning when you go out into the field, oriole and bluebird and blackbird and bobolink will fly after you and make the day more delightful to you. And when you go home tired after sundown, vesper-sparrow will tell you how grateful we are. When you sit down on your porch after dark, fifebird and hermit-thrush and wood-thrush will sing to you, and even whippoorwill will cheer you up a little. We know where we are safe. In a little while all the birds will come to live in Massachusetts again, and everybody who loves music will like to make a summer home with you.”

The signers are :

| | | |
|--------------------|--------------------|------------|
| Brown thrasher, | Woodpecker, | Vireo, |
| Robert o' Lincoln, | Pigeon-woodpecker, | Oriole, |
| Hermit-thrush, | Indigo-bird, | Blackbird, |
| Vesper-sparrow, | Yellowthroat, | Fifebird, |
| Robin redbreast, | Wilson's thrush, | Wren, |
| Song-sparrow, | Chickadee, | Linnet, |
| Scarlet tanager, | Kingbird, | Peewee, |
| Summer redbird, | Swallow, | Phoebe, |
| Blue heron, | Cedarbird, | Yokebird, |
| Hummingbird, | Cowbird, | Lark, |
| Yellowbird, | Martin, | Sandpiper, |
| Whippoorwill, | Veery, | Chewink, |
| Water-wagtail. | | |

The bill which was drawn up in response to this petition provides that anyone who shall wear birds or feathers for the purpose of dress or ornament shall be fined \$10, and that the same fine shall be exacted from all persons who take or kill certain specially mentioned song-birds.—*Primary Education.*

October glows in every cheek,
 October shines in every eye,
 While up the hill and down the dale
 Her crimson banners fly.

DESK WORK.

THE AUTUMN FASHIONS.

The Maple owned that she was tired of always wearing —.
 She knew that she had grown of late too shabby to be —.
 The Oak and Beech and Chestnut then developed their —.
 And all, except the Hemlock sad, were wild to change their

—.
 "For fashion plate we'll take the flowers," the rustling
 Maple —.

And like the Tulip, I'll be clothed in splendid gold and —.
 The sturdy Oak took time to think—"I hate such glaring

—.
 The Gilly-flower, so rich and dark, I for my model —."
 So every tree in all the grove, except the Hemlock —,
 According to its wish, ere long in brilliant dress was —.
 And here they stand through all the soft and bright October

—.
 They wished to be like flowers—indeed, they look like huge

— !
 Fill the blanks with the proper words from this list :

| | | | |
|--------|------------|----------|-------|
| said | sad | green | dress |
| seen | shabbiness | red | clad |
| choose | lines | bouquets | days |

BEHEADING WORDS.

Behead the following words once, twice, three or more times according to whether a *word* is left after the head (first letter) is cut off, as, brave, rave. Twenty-one new words can be made.

| | | |
|--------|-------|--------|
| brave | place | scream |
| slave | sham | span |
| dashes | spin | start |
| tasks | there | malice |

Try to find in your reader or spelling book ten words which you can behead twice.

A PROBLEM.

Once four little cousins, Violet, Daisy, Rose and Lily went to visit their Aunt. She placed two dozen lovely paper dolls in a row. The dolls were numbered 1, 2, 3, etc., and the Aunt said :

"No. 1 belongs to the girl whose name would come first alphabetically, No. 2 and 3 to the two next in order, and No. 4 to the child whose name would be last. Each girl is also to have every fourth doll from her first one, *if* she can tell by number what dolls belong to each child." The little girls won the dolls. Could you?

This problem is more interesting than just beginning with 1, 2, 3, 4, and counting by 4's to 24. It has the added elements of remembering how many two dozen make, and how to arrange names alphabetically. Let the class *picture* the problem. A new problem may be made by substituting *two score* tops and five boys.

BIRD DAY PROGRAM.

Birds! birds! ye are beautiful things,
With your earth-treading feet, and your cloud cleaving wings.

Friday, October 28th, has been set apart by Governor Mount as Bird Day and Arbor Day. In the Outline of Township Institute Work will be found very excellent programs for the observance of either day. A teacher who desires to make the day a celebration of both, can combine the two in one. Considerable material has been given in this issue of the JOURNAL that can be woven into school work for Bird Day, and a few selections are appended here that can advantageously be used for such celebration. Those teachers who have read Mrs. E. E. Olcott's excellent articles on *Audubon* in preceding issues of the JOURNAL, will realize that she has paved the way by her history of the great bird-lover for this celebration. We suggest that one number of the program should be an essay upon Audubon, and that the last number should be the forming of an "Audubon Society" for the protection of the birds.

(Let the children arise in their seats and recite these selections without being called upon.)

1. We are the friends of the birds. Every one of us has taken one of them under his care. Not that we are not to look out for any of the others,—oh, no! That is part of our work, too. But we are not sure that the birds really trust us human folk,—they have known so many unkindnesses. We want them to learn to trust us, and we want people to know, too, that we are their friends. And this is the way we take to tell them. I am the friend of the bluebird.

"When the bluebird brings the spring,
Is it pinned beneath his wing?"

"After you have seen the bluebird, you will see no more cold, no more snow, no more winter."

2. Every one's a friend to Robin Redbreast, you will say ; but we find that he needs a defender,—just because, maybe, there are so many of him !

“ Robin, Sir Robin, gay, red vested knight,
Now you have to come to us, summer's in sight.
You never dream of the wonders you bring,
Visions that follow the flash of your wing ;
How all the beautiful by and by
Round you and after you seems to fly !
Sing on or eat on, as pleases your mind,
Well have you earned every morsel you find.”

3. I shall look out for the little brown thrush.

“ There's a merry brown thrush sitting up in a tree,
He's singing to me, he's singing to me !
And the brown thrush keeps singing,
'A nest do you see,
And five eggs, hid by me in a juniper tree ?
Don't meddle, don't touch ! little girl, little boy !
Or the world will lose some of its joy ! ”

4. I am taking care of the ground-sparrow's nest. No, I'll not tell you were it is. I must help the sparrow keep her secret, you know. No one shall mow very near it, and the tall grasses shall shelter it till the bird-lings all are grown and have flown away.

“ There is no thing so small
But God will care for it in earth and heaven ;
He sees the sparrows fall.”

“ 'Twas a white-throated sparrow that sped a light arrow
Of song from his musical quiver,
And it pierced with its spell every valley and dell
On the banks of the Runaway River.”

5. I shall befriend the blackbird. He looks very wise, and I have an idea that he could tell us a great deal if we could only understand his speech.

“ Perched high on a hazel,
A blackbird is singing,
With merriest music
The woodland is singing.”

“ Do you think if he said,
'I will sing like this bird with the mud-colored back
And the two little spots of gold over his eyes,
Or like this one that flies so low to the ground,'—

“ Do you think if he said, 'I'm ashamed to be black !'
That he could have shaken the samavras-tree,
As he does with the song he was born to ? Not he ! ”

6. I am the friend of the crow. Poor fellow, I am sure he stands in

need of one. I never hear him caw-cawing in the woods or down by the brook that I do not think how many traps are set for him ; and I do not wonder that he outwits all our devices. He has had practice enough ! But he does us many a good turn. Yes,—

“ Even the blackest of them all, the crow,
Renders good service as your man-at-arms,
Crushing the beetle in his coat of mail,
And crying havoc on the slug and snail.”

7. Master Bobolink has many lovers, but he needs a watchful friend no less than any of his brothers. I will have an eye on him.

“ Gladness of woods, skies, waters, all in one,
The bobolink has come, and like the soul
Of the sweet season vocal in a bird,
Gurgles in ecstasy we know not what,
Save June, dear June ! Now God be praised for June ! ”

8. I shall befriend the swallows, whirring in the chimney or circling around the yard, and darting in among the dusty beams of the old barns. There is no one who doesn't love to watch them, no farmer who is not glad of their company at his tasks.

“ 'Tis true one swallow never made a summer,
Yet where one swallow, poised on steely wings,
Flies through the soft spring air,
Be sure the rest will follow.”

9. (A very small girl). I will look out for Jenny Wren,—

“ Wee wren that I love ! ”

10. I will scatter crumbs for the snowbirds and chickadees, and the rest of the dear wild things who are not afraid of the frost and snowfall. I will see, too, that the cats are not let out while they come to eat the breakfast I give them. My task is the best of all, for it lasts all the year !

OLIVE E. DANA.—*American Teacher.*

11.

A SPRING MEETING.

Hullo, Bob Wren ! You are back again ?
Glad to see you so well and so merry ;
Fear we're here rather early this year ?
Dear, but I wish I'd a bite of a cherry !
Just ripe in the south, melt in your mouth
Wern't you sorry to leave the sunny
Land of bloom, and of bees and honey ?
By-and-by here 'twill be bright and jolly
With bud and blossom, but somehow now
The atmosphere seems melancholy,
For there's not a leaf on a single bough,
And the wind, oh, how it makes you shiver,

And long for the balmy air that blows
The reeds that quiver, above some river
That warm in Floridian sunlight flows?

Have you any new songs to sing this season?
And do you know where you are going to stop?
We've taken rooms in the very top
Of "The Maple"—prices quite within reason.
You've a flat near by that you've leased till fall?
How nice. Then surely you'll come and call.

12. ESSAY..... Subject—Audubon

13. "O, Bluebird, up in the maple tree,
Shaking your throat with such bursts of glee,
How did you happen to be so blue?
Did you steal a bit of the sky for your crest,
And fasten blue violets onto your breast?
Tell me, I pray you, tell me true!" —Swett.

14. I once was a hunter with powder and ball,
And pleasure I took in collapse, and the fall
Of feathery thing that down I could bring
From the region of song and the beating of wing,
Excuse did I need? Well, I thought it enough
That the bird I could hit, or could pluck, or could stuff.

But now, in the mellowing touch of the years,
My gun, it is rusted—I *hunt with my ears*.
In meadow, in wood, or the river along,
I listen intently to catch a new song.
I hunt with my eyes. And the singer to see
I watch through the days—or the years, if need be.

—Chas. J. Adams.

15. From all sections of the country comes the cry that our song birds are fast disappearing. Where are our bluebirds that used to be so numerous? Our orioles that swung their hammock nests from the slenderest twigs of our elms? And the bobolinks "that spattered the meadows all over with music?"

16. The sportsman's gun and the small boy's sling and shooters of various kinds are answerable for a part of the loss. We wonder how men and boys can be so cruel and thoughtless, but probably they never have thought of what the preceptor said to the farmers of Killingworth when they wished the birds killed because they claimed a share of the fruit in the garden.

17. Doubtless the clearing away of forests and settling and building up of country places are, in part, responsible for the loss of some of our birds; but only in part, for many birds will, if unmolested, build and live year after year in our orchard trees.

18. The Massachusetts Audubon Society calls attention to the fact

"that the wearing of feathers and skins of birds for ornament has, without doubt been the chief reason for the final flight of many of our songsters."

"It is stated that while this cruel custom was at its height, a London dealer received at one time more than thirty thousand dead humming birds."

TEACHER.—Shall we not form an Audubon Society and pledge ourselves to protect the birds at all times?"

EDITORIAL.

THE BETTER WAY.

He serves his country best

Who joins the tide that lifts her nobly on ;
For speech has myriad tongues for every day,
And song but one ; and law within the breast
Is stronger than the graven law on stone ;

There is a better way.

He serves his country best

Who lives pure life and doeth righteous deed,
And walks straight paths, however others stray,
And leaves his sons, as uttermost bequest,
A stainless record, which all men may read ;

This is the better way.

—Susan Coolidge.

INDIANA STATE LIBRARY.

State Librarian, W. E. Henry, has sent out a circular asking for co-operation in the work of completing files of magazines, pamphlets, reports, etc., and also in securing rare and out-of-print books, public documents, etc. This is a highly commendable move on the part of Mr. Henry, and his request should meet with hearty response. He appeals particularly to local librarians, but there are many individuals who are interested in this same thing and they can also join the movement.

Persons having old books, odd numbers of old magazines, reports of societies, etc. to dispose of or exchange, will be interested in this movement. Write to the State Librarian for circulars and details.

THE BOBOLINK IN INDIANA.

HOBART, IND., August 18, 1898.

Editor Journal :—

In the Lend A Hand department of the August JOURNAL, page 508, I think Mrs. Olcott is mistaken in her estimate of what Hoosier children know, or should know of the bobolink. The ornithologist who has made any very extensive observations in Hoosierdom within the past few years,

knows that this very interesting little creature is abundant here, especially in the northern part of the State. I have been acquainted with it here for the past seven or eight years and I think teachers and pupils should know something of it by this time, if they have been interested along that line.

Respectfully, A. R. HARDESTY.

The editor has had his attention called to Mrs. Olcott's statement by other persons, living in the northern part of the State. The testimony seems to be incontestable that the bobolink is found in northern Indiana, but this will be news to most teachers living in the central and southern parts of the State.

YOUNG PEOPLE'S READING CIRCLE BOOKS.

| LIST OF BOOKS FOR 1898-'99. | | Price by Mail. | Price by Express or Freight. |
|---|--------|-------------------|------------------------------------|
| FOR SECOND YEAR PUPILS. | | | |
| The Plant Baby and Its Friends—Brown..... | \$0 42 | \$0 37 | |
| King's Picturesque Geographical Reader, I..... | 46 | 38 | |
| Stories of the Indian Children—Husted..... | 40 | 34 | |
| FOR THIRD YEAR PUPILS. | | | |
| Stories of Greek Gods, Heroes and Men—Harding..... | 48 | 42 | |
| King's Picturesque Geographical Reader, II..... | 65 | 60 | |
| Four Great Americans—Baldwin..... | 46 | 39 | |
| Buz; or the Life and Adventures of a Honey Bee..... | 68 | 60 | |
| FOR FOURTH AND FIFTH YEAR PUPILS. | | | |
| Stories of Long Ago—Kupfer..... | 34 | 28 | |
| The Fast Mail—Drysdale..... | 1 02 | 90 | |
| Things Will Take a Turn—Harraden..... | 80 | 70 | |
| Three Young Continentals—Tomlinson..... | 1 02 | 90 | |
| FOR SIXTH AND SEVENTH YEAR PUPILS. | | | |
| Tommy-Anne and the Three Hearts—Wright..... | 1 00 | 88 | |
| True to his Home—Butterworth..... | 1 02 | 90 | |
| Stories from English History—Blaisdell..... | 46 | 38 | |
| The Log School House on the Columbia—Butterworth..... | 1 02 | 90 | |
| FOR EIGHTH AND ADVANCED YEARS. | | | |
| The Story of the Indian—Grinnell..... | 1 02 | 90 | |
| National Epics—Rabb..... | 1 00 | 88 | |
| Getting On in the World—Matthews..... | 95 | 85 | |
| Total..... | | \$11 57 | |

The above books may be obtained from George F. Bass, manager, Commercial Club Building, Indianapolis, Indiana. Books will be sent prepaid on receipt of prices given.

This is an excellent selection of books, and teachers cannot do a better work than to put them into the hands of the children. It is a part of a teacher's business to encourage the reading of good literature. Indiana teachers with but few exceptions recognize this fact, and this explains why this State leads all others in the Y. P. R. C. work. This year has started splendidly. Let the good work continue.

SPELLING.

Shall the spelling book be used in teaching spelling, or shall the words be selected from the daily lessons? This is a question much discussed, and there are strong arguments in favor of both methods. The rational conclusion is that spelling should be taught by both plans. A question more important is, *what words shall be taught*. The child cannot learn to spell all words, and there is no necessity for his being taught to spell all the words, even in his own vocabulary.

The child must be taught to spell such words as he is likely to use in his *writing*. When he leaves schools the only words he will have to spell will be the words he has to write. He may use a thousand words in conversation and may pronounce them correctly and know the meaning of them, and not be able to spell them, and be just as happy as if he *could* spell them. If the words for spelling are taken from the lessons, only such words should be selected as are used in ordinary life. In all the branches of study, especially in geography, history and physiology, there are numerous words that the child will never be called upon to write and it is time wasted to teach him to spell them. In after life the words that are misspelled are not the unusual words—these are always looked up. The words that are missed are the little every day words, such as; there, their, of, off, to, too, separate, benefited, principal, principle, situation, supersede, till, until, sure, twelfth, grate, great, level, plain, plane, annual, right, write, ceiling, sealing, separate, rich, deceive, relieve, etc. These and such words as these must enter into the vocabulary of every person in all kinds of writing, and they should be so thoroughly taught that they will never be forgotten. Five hundred words can be selected that are used and re-used that form the bulk of all written communications, and the spelling of these is of more value to the average boy or girl than is the spelling of all the rest of the dictionary. Drill on these words. Do it orally and by writing. Drill, *Drill*, DRILL.

THE COLLEGE QUESTION.

The "non-State" schools have issued a circular letter to the legislative candidates of the State, in which they define their position relative to the present school controversy. The letter bears the signature of Scot Butler, president of Butler College, and reads as follows:

"Dear Sir:—In venturing to address you, I do so as the representative of an association composed of the presidents of the following colleges of Indiana: Earlham, Franklin, Hanover, DePauw, Wabash, Moore's Hill and Butler.

"Your attention is respectfully called to a matter of public interest that is likely, in some of its phases, to come under consideration during the next session of the State Legislature. As you are doubtless informed, a cause of disagreement regarding certain matters affecting educational interests has arisen between the State Board of Education and the non-State colleges. Much misinformation regarding this matter seems to have gained currency, and we of the non-State colleges above named desire that our true position be understood. Certain charges have been made against us having no foun-

dation in fact, and, indeed, on their face, incredible, to which we wish, in the first place, to enter general disclaimer as follows: (1) We do not oppose the appropriation of State funds for the support of the State's higher institutions of learning. (2) We do not ask that any share in this support be accorded any institution subject to private control. (3) We do not seek "ecclesiastical domination" of the public schools. (4) We do not ask that the State Board of Education be abolished. (5) We do not ask official representation of the non-State colleges on the State Board of Education.

THE REAL CONTENTION.

"On the contrary, our contention is simply this, that the presidents of the three State schools—Indiana University, Purdue University and Indiana State Normal School—shall not hold position on the State Board of Education by virtue of the fact that they are presidents of these schools. We would have these places on the board filled by appointment. We aim at what we believe to be the true interest of higher education in our State. We recognize, as plainly evident, the fact that the present order works to the down-pulling of a large and important class of educational institutions, and we desire a change in the present order, that, we are convinced, will go far toward conserving to the State all its educational forces. We would have the State Board of Education become the center of a system that should unite and control all these forces. We would have the range of its influence enlarged, so that it should supervise all our educational institutions, confer degrees, revoke charters in case of unworthiness, and thus advance the general standard of education in our State. But, holding that the policy of the board, as at present constituted, is adverse to the important educational interests we represent, we ask for an amendment of the law governing its organization, and meantime we protest against any legislation that shall add to its powers."

The JOURNAL regrets to know that this State *vs.* non-State contest is still going on and growing, and is likely to be carried into the next legislature.

Already there is a good deal of feeling manifested on both sides, and each charges the other with assuming positions which the other denies.

The above is an authorized statement by one side, and the JOURNAL will be glad to print a statement representing the other side.

The pith of all the contention seems to be the composition of the State Board of Education. One side contends that the three State colleges should not be officially represented on the Board, and the other side insists that they should be. After hearing numerous statements from both sides it seems clear that if the *ex-officio* representation of the State colleges could be disposed of, it would be a comparatively easy matter to agree upon other points.

The JOURNAL would not like to see the present organization of the Board entirely changed. The present plan removes the Board the farthest possible from politics as the members are all *ex-officio*. To give the Governor power to appoint the board, without restriction, would make it a mere political machine.

But to allow the Board to remain as it is, except these three college presidents who are *non grata* to the non-State college men, and allow the Governor to appoint three more, with the stipulation in the law that they shall be educational men, and with the further proviso that they shall be appointed for a term of years and with their terms expiring at different times, so that no Governor, after the first appointments are made, will have the opportunity of appointing more than two members, would put it out of the power of the Governor to control the Board even if he desired to do so.

The JOURNAL is in favor of this change in the composition of the State Board, not because it is opposed to the State colleges, but because it is in favor of them. The JOURNAL does not wish to be misunderstood by either side to this controversy, so it will again say : It is unqualifiedly and uncompromisingly in favor of the State colleges and of their liberal support by the State ; but at the same time it recognizes the value to the State, of the great work being done by the non-State colleges and schools, and it believes that the State should appreciate and acknowledge this help, not by giving money but by giving recognition and encouragement.

That there is a large number of people who are opposed to the support of the higher schools by taxation all will agree, and that this element is being aroused to action by this continued controversy, no man with his eyes open can deny.

The great danger is that this contest will go on till the State colleges will not only have to contend for official representation on the State Board, but that they will have to fight for their very existence.

The JOURNAL insists that in favoring this compromise it is a better friend to the State colleges than are the men who are now speaking for them.

The chances are that a great deal of much needed school legislation will be defeated unless some agreement is reached between the State and non-State men. Compromise, *compromise*, COMPROMISE.

ONE-FIFTH OF THE POPULATION WENT TO SCHOOL LAST YEAR.

The annual statement of the Commissioner of Education shows continued prosperity of the elementary schools.

The increase during the year 1896-97 amounted to 257,896 pupils over the previous year. The total enrolled in elementary schools amounted to 15,452,426 pupils. Adding to it those in colleges, universities, high schools and academies, the total number reached 16,255,093.

A little more than one-fifth of the entire population attended school at some time during the year. There has been a marked increase of students in colleges and universities. In 1872 only 590 persons in the million were enrolled in those institutions. In 1897 the number had arisen to 1,216 in the million, being more than double that number.

BOOK EVALUATIONS.

CONDUCTED BY CHARITY DYE.

[NOTE.—*This department is not a library bulletin, but a teacher's exchange through which the experience of one will reach a number of others.*]

(Communications addressed to 1122 Broadway, Indianapolis.)

[The following evaluation with the accompanying setting forth of the story of "The Swans of Lir," by Miss Elizabeth Collins, of the Indianapolis schools, calls forth the sincere appreciation of this department. Any questions to Miss Collins will reach her through the address given above.]

Gerald Griffin's charming rendition of "The Swans of Lir," one of the mythic tales of the Celts, deserves a wider recognition than has hitherto been accorded to it.

The metrical version of this and other tales of the world's youth by Aubrey DeVere is delightful reading. The poet has the sympathy, the patriotic fire, the heroic spirit, which rouses the soul when he brings before us the mighty figures of his country's past,—Carborne Cuchullain, The woes of Dierdre, or The Hapless Children of Lir.

FATE OF THE CHILDREN OF LIR.

Speaking of the sources whence Englishmen derive their stock, Emerson says: "They are of the oldest blood in the world—the Celtic. Some people are deciduous or transitory. Where are the Greeks? where the Etrurians? where the Romans? But the Celts are an old family of whose beginning there is no memory. They planted Britain, and gave seas and mountains names which are poems and imitate the pure voices of nature. They had no violent feudal tenure, and the husbandman owned the land. They had an alphabet, astronomy, priestly culture, and a sublime creed. They have a hidden and precarious genius. They made the best popular literature of the Middle Ages in the songs of Merlin and the tender and delicious mythology of Arthur."

Rejecting Norman and Dane as naught but contributors to English development, Gummere seeks the founders of England among the Celts whom Cæsar found in Britain or among their Germanic conquerors. "We are Germanic in our institutions," says Huxley, "but the race itself is at least half Celtic in blood." While Grant Allen admits the Germanic origin of the English language, he traces the imaginative excellence of its literature to Celtic influence. "What is England?" Arnold is inclined to answer: "A vast obscure Cymric basis with a vast visible Germanic superstructure." According to this high authority, from Celtic sources our literature derives its humor, our poetry, its style, its melancholy, its natural magic.

The Celtic language comprises the Cymric—Welsh and Breton, and the Gaelic—Irish, Highland Scotch and Manx.

Celtic literature includes historical and epical poems, prose history, and mythological tales.

The limits of this article will not permit any consideration of the voluminous and remarkable literature of Wales, nor more than a brief abstract

of some of the heroic tales of the Gael which form one of the finest epic cycles in Indo-European literature. The best of those tales, "The Sorrows of Song," comprises the "Cattle Spoil of Cualnge," the "Sons of Usnach," and the "Children of Lir." The last an idyl of childhood, deserves a high place in the child literature of the world.

I.

Long ere the warlike Gael came to Erin the isle was ruled by the Tuatha de Danaans, a race of bold warriors, tall, dark-haired, and gifted in magic. Though conquered by the Gaels, they were not driven from the land nor were their kings deprived of power in some localities.

Near Lough Derg stood the palace of Bove, Arch-King of the Tuathas, while the warrior Lir dwelt amid the shades of Finneha.

Lir hated the sorcery of his people. He was married to the most beautiful princess in the land, and men noted how the influence of the gentle queen softened the stern warrior.

"Thus happy lived the pair and happier far
When four fair children graced the royal house
Fairer than flowers, more bright than moon and star
Shining through vista long of forest boughs ;
Finola was the eldest, eight years old,
The yearling Conn, best loved of all the fold."

Happiest of men was Lir until one fatal morning when—

"A nation round their monarch's gateway stood
All day there stood they, whispering in great dread ;
The herald came at last—' Our Queen is dead. ' "

Loud and long rose the wail of the orphaned people, but Lir mourned as one without hope. Though the invading Gaels came nearer and nearer, he did not rouse from his stupor of grief. At length—

"King Bove, chief sovereign of the dark-haired race,
Sent to him saying, 'Quit thee like a man !
The Gaels, our scourge, and Erin's sore disgrace,
Advance, each day, their armies clan by clan ;
Against them march thy host with mine, and take
To wife my daughter for thy children's sake. ' "

For the sake of his children Lir consented to marry the princess. The wedding feast at Lough Derg was magnificent, but amid the pomp of the ceremony we hear the first discordant note. When Bove praises his daughter, Lir replies :

"Love she my babes ! and then
With her my love shall bide ; if not—my hate"
And she, a crimson on her dusky brow,
Replied—"If so it be, then be it so !"

[TO BE CONTINUED.]

TOWNSHIP INSTITUTE OUTLINES.

THIRD INSTITUTE.

SOCIAL ELEMENTS.

I. OUR INDUSTRIAL ORGANIZATION. CH. VII.

1. Note the motive and the process of the organization of industry, to be seen in
 - a. The *Wants* of Men, which are to be supplied by
 - b. The *Work* of Men, under the operation of
 - c. The *Economy* and
 - d. The *Invention* of Men. Pp. 113-119.
2. Distinguish the various systems and institutions of organized industry.
 - a. Slavery.
 - b. Serfdom,
 - c. The Factory System, or the Wage System. Pp. 119-124.
 Do these forms of industry suggest an evolution? What are some of the evils of the present wage system? In what sense is it natural? How is the Trade Union an outgrowth of it?
3. Consider how the division of labor in our industrial system has led to modern business methods and ways of exchange.
 The great and greatly discussed topics of price, value, money, are incidentally suggested, but they can hardly be satisfactorily considered.
4. In the consideration of our industrial system, have brief papers to be subjected to questions and criticisms on
 - a. The Capitalist and his functions.
 - b. The Manager and his functions.
 - c. The banker and his functions. Pp. 127-130.
 - d. Benefits and evils of combinations of capital.
 - e. The nationalization of industrial agencies as a remedy for evils.
 - f. Profits: Their sources and distribution.
 - g. Wages, and how they may be secured and maintained.
5. Attempt to define the relation between economics and sociology.
 The topics of this chapter are more fully treated in the standard text-books on political economy. See also the suggestive questions for the chapter on pp. 401-402. Many of these may be used as the basis of further study and discussion.

II. ECONOMIC BETTERMENT.

1. Have some member of the Institute give a definition of industrial progress and summarize from the first fifteen pages of the chapter the tangible evidences of this progress. Will some other member of the Institute be ready to review these pages in the light of further reading? See footnote references (pp. 162-163) for opposing views. Discuss the two papers.
2. Note the causes of economic progress. Pp. 156-159.
3. Influence on industry and on the worker of
 - a. Machinery.
 - b. Speculation.

In the discussion of such a chapter as this the Institute will have need of the calm, judicial spirit. It should be remembered that the author has not presumed to dispose of the subject. The chapter should be studied for suggestions rather than for conclusions.

In the study of "Social Arts," two thoughts deserve the special attention of the reader; the classification of the "useful arts," and the reason for their study in schools. The teacher should notice that lawyer, physician, teacher, merchant, farmer, shoemaker and blacksmith are all put on the same plane.

They are all useful artists. They all administer to social welfare, and their activities are all necessary to social existence. In this classification we have the measure of value of all things. A man is worth what he contributes to the betterment of his community. It matters not the form in which he renders this service; the essential thing is that he shall do something that makes it easier for his neighbors to live their better lives. This means that labor is sacred; that toil is noble, and that he who toils is the true nobleman. This standard of measurement values a man not for his external wealth or honor, nor for his degree of culture, but for his contribution to the world's wealth and culture. This view of life gives new significance to the trades and professions, a meaning which is vital to the youth of our land. The second thought is the value of teaching the useful arts in the schools. In the first place if the school is to prepare for life and if a life is to be measured by the social service it renders, it is clear that the school does not fulfil the purpose for which it is established until it imparts to the pupil sufficient skill in some art to enable him to succeed in the struggle for existence and at the same time promote the welfare of his neighbors. The ideal school will be a "practical" school in the best sense of the term. It will send out graduates in carpentry, farming, blacksmithing and sewing just as it now sends out graduates in teaching, medicine and ministry. The desirability of this development of the school is an excellent topic for discussion in teachers' institutes and clubs. See article on "Sociology in the Public Schools," SCHOOL JOURNAL, April, 1898. But there is another and better reason for the study of the useful arts. "Morality means social sympathy, and this comes from knowledge. Moral training is possible only through social training. Moral character is the attitude that comes from a clear insight into the interdependence of all kinds of work and workers.

The best moral training is given by imparting to the child a true conception of the social service rendered by each trade and profession. When he understands how his life depends upon the toil of the coal-miner there is greater possibility that he will be just in his dealing with the miner. When he understands the risks involved and the labor performed by the railroad employee, and how much the comforts and necessities of his life depend upon the service, he will certainly view the railway operative with more sympathy and justice. This conception of moral training is the most distinct advance in educational thought in recent years. For an authoritative statement of this view see Dr. John Dewey's "My Pedagogical Creed," published by Kellogg, and his contribution to THE THIRD YEAR BOOK of the Herbart Society. For the latter write Chas. McMurry, Bloomington, Ill. The following lines of study are suggestive of the work which may be done in the schools:

First. The service of the inventor as shown by the progress resulting from improved machinery.

Second. As shown in the service of electrical appliances.

Third. Trace the origin of and collection of the contents of the provision store.

Fourth. Trace the dependence of science upon the fuel supply.

Fifth. See the social worth of the chemist, by listing the articles in the school room which are results of chemical processes.

Sixth. See the social service of the bank.

Seventh. Show how all society depends upon the farmer for its food supply.

Eighth. Show how in return the farmer is dependent upon bank, store, lawyer, newspaper, school, &c., in his occupation. These topics are of great interest to children and certainly of great profit. The reader may extend the list indefinitely. The superior insight coming from such study certainly will develop a truer social sympathy, and a practical morality. More, it will heal the place in which American civilization is sore.

Language is a vital social factor in that it is the vehicle of communication, and there can be no association without communication. Without language of some sort there could be no co-operation, no living together, no family, no business, nothing that distinguishes humanity from brute life. Without language there could be no progress, no art, no science. Language is the repository in which the race preserves its knowledge, the means by which knowledge is transmitted. The great importance of language study in the schools then is evident. From the social point of view there is nothing more vital than the development of the language arts.

In order to appreciate the worth of the newspaper look at it as a social promoter. Investigate the local press and look for the following forms of service :

First. Its suggestion of public improvements ; roads, streets, police reform, sanitary measures, business enterprise, etc.

Second. Its service in promoting business ventures, in advertising the community, in "booming" the city.

Third. Its service in regulating conduct, public and private, dress, sport, politics ; in protection of the community from frauds.

Fourth. Notice its participation in the temperance movement ; in promoting educational institutions and activities ; in fostering church influences ; in stimulating society functions, charity fairs, celebrations, &c.

Fifth. Observe its formative influence in determining candidates and issues in elections, state and national legislation, and national diplomacy.

Sixth. Also look at the newspaper as an educational agency. This is seen particularly in magazine literature.

But the Social Arts also include the Fine Arts. I can not see, however, why the author should distinguish between the fine and the useful arts. They are all necessary to human existence. The fine arts furnish the sunshine of life, and humanity can no more exist without sunshine than can the potatoes in your garden. This constitutes their social function, and the reason for their special cultivation in American life. A profitable topic for discussion in institutes is the educative value of poetry, classic art, and classic music in the schools.

CHAPTER VII.

The satisfaction of human "wants" is the motive of social activity. These wants may vary all the way from the sordid animal passion to the most refined art sense, yet there will be no activity, except as required by the desire to satisfy these wants. The advance of the people is measured by the

number, variety and intensity of wants, the improvement in the methods of their satisfaction, and the extent to which society has rendered this satisfaction easy and sufficient by corporation. The classification of "human wants" made by Small and Vincent will be of service to the reader :

First. Health, including food, clothing, sex appetites.

Second. Wealth, the desire for property.

Third. Sociability.

Fourth. Knowledge.

Fifth. The aesthetic wants.

Sixth. Wants connected with the activity of conscience. It would be a valuable exercise for the reader to list the various wants of the people of his community, and to distribute them under the six divisions above indicated.

Society is supported by work. The value of any member of society is determined by the extent to which he contributes to the satisfaction of one or more of these wants. Subsistence is secured only by toil. We must live by work if we live at all, by our work or that of some one else. The non-producer is a parasite living at the expense of other members of society, a hindrance to prosperity. We must live by the sweat of our brow, if we are not to be leaches on the industrial body.

But life is a struggle for existence; the margin between supply and demand is at all times dangerously close. We must get the most for our expenditure of time and effort. This requires economy. The necessity of economy requires the regulation of industry, such orderly arrangement of industrial agencies that there will be secured the largest possible product, the least possible waste, and the most equitable distribution. This leads to Division of Labor. Economy requires that there shall be specialization of activity. There are necessarily three industrial factors, the Business Manager or Captain of industry, the Capitalist and the Laborer. In the simplest form of industry all three factors may be combined in one person, but as society develops these functions are assigned to special classes. The business manager is the superintendent who combines an expert knowledge of the conditions under which the business must be conducted, with the ability to govern men, to market his wares at the right time and in good condition, to understand the wants of the public and the best and cheapest way of meeting them, to adjust ways and means economically. The banker is the business manager of the community. The following syllabus is suggested as helpful in getting a proper view of the bank :

First. The bank as an agency for accumulating capital as ; a saving bank.

Second. A means of local exchange ; a medium through which payments are made by check on deposits.

Third. See how the bank serves as a collecting agency.

Fourth. See how the bank is a promoter of industry by serving as a place of safety deposit for the business public.

Fifth. An institution for negotiating loans either by direct issue of notes on hand, or by discounting bonds and bills receivable;

Sixth. Find how exchange with other cities, and with foreign countries is effected.

Seventh. Explain the laws relating to banking.

Eighth. Observe the bankers' careful accounting of every farthing of the bank's business. This is a fine exercise for pupils in the grammar grades, and one which the public school ought to give in view of the very prevalent prejudice against banks.

Capital is the second great industrial factor. The construction and operation of our vast railway systems, our great factories and large commercial enterprises require the investment of large masses of capital. Without the large combinations of capital which excite so much current criticism, many of our most vital industrial developments would have been impossible. At the present time, in view of the peculiar conditions prevailing in the industrial world, nothing is more vital than a correct appreciation of the very special service of the capitalist.

Labor is the third industrial factor. While the laboring man is not the only productive agent, he is an absolutely essential one. If anything, his dignity is not sufficiently recognized. Industrial organization requires that he be a skilled workman. This demand is becoming stronger and stronger. Much of the distress of the laboring class is due to the fact that the laborer as a class does not recognize this tendency.

There is considerable uneasiness current with regard to the possible evils of large combinations of capital. In the popular mind this tendency is regarded as unnatural and artificial. In fact they are the natural growth of our conditions and stage of culture. It is desirable that all citizens should understand this tendency, for it is universal and necessary. The trust, the monopoly, the department store, the trade-union, the Board of Trade are not artificial creatures, the machinations of evil-minded men who have banded themselves together for plunder. Nor are the dangers generally cited likely to be realized. We have an effective check to the possible mischief of corporations in the tendency of capital to enter into competition with any business that is earning more than a living profit. People very readily find a substitute for an article that is costing them too much. The danger is not in too great combination, rather it is in the combination stopping short of a full and equitable division of investment and returns. The principle is to be accepted and applied to all spheres and phases of industrial organization.

In order that the reader might verify the foregoing, I suggest that he investigate :

First. The Armour meat packing business, its history, its influence on the price of meat and live stock, its relations with its employees. Has this combination of capital promoted the general welfare ?

Second. The history of the Pacific Railway. Trace the service of this railway system in the development of the Great West.

Third. The Pullman Car Works.

Fourth. The consolidation of railway lines and the rate of freight and passenger charges ; improved service in the point of equipment, speed and number of trains. Have the combinations in these instances been good or bad ?

Fifth. The U. S. Postal system.

Sixth. The department stores in our large cities; do they give good service at less cost? Do they drive out the smaller stores?

Seventh. Would the express service be improved if instead of the few large corporations, there were a number of smaller competing systems?

CHAPTER VIII.

The ultimate test of social progress is the degree to which increasing wants are satisfied with less and more pleasant labor. This means larger production of wealth, higher wages, lower prices, better quality of goods, less dirty unpleasant work, and more regular employment. That there has been a very marked industrial improvement in this country the author proves by the following lines of evidence:

First. The wealth of this country has increased over 300% per capita during the last forty years.

Second. The rapid growth of our population.

Third. The number of bread-winners increased from 32% to 36% of the total population in twenty years preceding 1890.

Fourth. The rate of wages has increased 86% in the fifty years ending 1891.

Fifth. The cost of living has decreased from 4 to 5 % in the fifty years preceding the last census.

Sixth. In the same time the working has been reduced 1.4 hours.

Seventh. Add to the foregoing, employment is more certain, and wage-earners have improved in health, intelligence and character.

The reader may verify these claims by making a comparison of the conditions existing in his own community at the present time and those existing fifty years ago with regard to

First. Ratio of increase of total valuation of property,

Second. Ratio of bread-winners to the total population,

Third. Total income,

Fourth. Rate of wages,

Fifth. Market price of corn, wheat, meats, clothing, hardware, vegetables, etc.,

Sixth. Quality of clothing, household furniture, houses and barns,

Seventh. Severity of labor performed, holidays, length of working day,

Eighth. Comforts of life enjoyed by the working man.

The author holds that the causes promoting this betterment of the industrial situation are the development and application of the sciences, the growth of invention, increased facilities for transportation, the growth of democracy whereby the wage earner may bring the government to his assistance, and the attainment of universal intelligence whereby the common man by his very manhood requires recognition. In other words education is the means and prime cause of economic betterment, Universal education is the bulwark of prosperity as well as of popular sovereignty. Secondary causes of the improved condition of the wage-earner are the competition of the employer for the best workmen, and of the merchant for his trade, and the trades-unions.

The masses raise three objections to the present industrial order; that

machinery displaces labor, that "the rich are growing richer and the poor are growing poorer," and that speculation constitutes so large a factor in commercial enterprises that markets are largely fraudulent—that at least they are artificial. But to these objections the following answers are pertinent: *First*, The introduction of machinery increases rather than diminishes the demand for labor; it does however, require a transfer of labor from one field of employment to another, and it is the inability of the laborer to readjust himself to the new state of affairs that produces suffering. *Second*, While the rich are growing richer it is not true that the poor are growing poorer. The proof of economic betterment is sufficient answer to the second objection. *Third*, While there is no doubt a vast deal of gambling on the markets, yet the Board of Trade is a valuable institution. It is necessary that there be a special agency for the study of commercial conditions and the fixing of prices. This service the Board of Trade renders. Again it is a question of regulation rather than obligation. But the reader must remember that all things are controlled by law; that the reign of natural law obtains in the commercial world as certainly as in the realm of nature.

W. A. MILLIS.

PLATO'S REPUBLIC.

I. BOOKS V, VI AND VII.

- a. See pp. 25 to 39, inclusive, of "Studies in Plato's Republic," or "The Republic of Plato," pp. 25 to 39, inclusive.
- b. Supplementary suggestions.
 - (1) The State, *i. e.*, society is considered as an objectification, an exhibition of man's nature. (Bk. II, secs. 368-369, p. 116.)
 - a. How is this superior to the Oriental view that the institutions are fixed, permanent and the individual must be modeled to them?
 - b. The advantage of Plato's view to the teacher.

In our last article we tried to indicate the main subject and plan of the Republic and to call attention to some general conceptions of essential importance. Justice conceived as the *summum bonum*, the ideal end of life, was named as the main theme to which all other subjects are made subsidiary. The significance of the terms "just" and "good," the relation of the individual to the State, the discussion of education as a means to the attainment of justice in both the individual and the State, and the importance of the doctrine of "ideas" as the key to Plato's thought, were briefly brought under review. In order the better to follow the plan of the Institute Outline, we shall leave for a future time the specific discussion of education as a means to the attainment of justice, and shall in the present article consider Plato's idea of the State, *i. e.*, of society for the service of which the individual is to be trained, and the relation between this ideal and human nature of which it is supposed to be the expression.

Socrates and his friends are discussing the subject of justice. They seek examples of it that they may frame a definition of it. Justice is spoken of as a virtue in both an individual and the State. The State is larger than the individual, hence if we can find a picture of justice in the former we shall be

on the way to knowledge of what constitutes it for the latter and to a definition of that which has been proposed as the end of life. The general theme remains the same, viz.: justice. The specific subject for the moment is the nature and origin of the State.

"The State arises out of the needs of mankind." Man is first of all an animal. Plato refers to him as one among "other animals." As such his merely animal wants, food and protection must be supplied. These wants are best provided for by the association of groups together as shown among gregarious animals. This is the primitive form of society and out of it rises the state.

The state grows. So long as men's wants are merely those of the "other animals," their modes of association will be on the animal plane. But when the distinctly human nature begins to assert itself, the state begins to make progress. As an animal, man needs food and protection, as a human being he needs clothing, then better clothing, ornaments, implements, and the means of cultivation of mind and heart. One man can not well provide all these things for himself so men bind themselves together for mutual assistance.

As the State grows there is a differentiation of its parts. In so far as it is an organism it may be said that there is a differentiation of organs and a corresponding differentiation of function. This is especially manifest in the industrial world. As the physical body in the course of its evolution differentiates into tissues of various sorts,—bone, muscle and nerve—so industrial society develops into husbandmen, builders, weavers, shepherds, carriers, etc. In Plato's ideal state this differentiation of parts results in the evolution of three great classes, viz.: philosophers, warriors and laborers. Each of these classes has its specific function, the first to rule, the second to guard, the third to serve the State.

Every man in the State is to join the one of these three classes for which he is qualified by nature and training. There is no impassable barrier between the classes. There is no caste system. There is no aristocracy of birth. The aristocracy of Plato's Ideal Republic is an aristocracy of individual power. A man born into the family of a philosopher may find his true life work among the laborers. The shoemaker's son may become chief of philosophers. This aristocracy of power arises out of the truest democracy of opportunity.

Education as well as native ability, must prepare the philosopher, who is also the ruler, for his life work. The talented youth left untrained or wrongly trained, fails to reach the position in society for which he was fitted by nature and the state loses a good ruler by the mistake. The youth who would have made a good laborer or a valiant warrior is trained for a philosopher and the result is a miserable failure, the state is the loser and philosophy is brought into ill repute. The individual should be trained to do the thing that he can do best, be it making shoes, fighting an enemy or making laws. The life work once chosen for any youth, proper ideas must be set before him. What is not desired in the developed state must not be allowed even in the thought life of its youth. This leads to the specific teaching concerning education.

The development of no one of the three classes is to be permitted at the expense of the others. The warrior must not be allowed pay for his services, lest ambition lead him to use the power which he holds for the overturning of the State and the advancement of his own selfish personal interests. The honor of being the State's defence, must suffice for his pay. His gold must be within himself. Not the happiness and welfare of any particular part of the State is the end sought, but the happiness and well-fare of the State as a whole. Individual interests must, if necessary, be sacrificed for the benefit of society.

Each of three classes has its distinctive virtue. That of the philosopher, the ruler, is wisdom, the exercise of reason. In order that he may command what is right and true, he must know what is right and true. He must be able to see through mere "becoming" to the real "being" behind it, through appearance to reality, through the temporal to the eternal. And seeing that which is eternal, he must not be moved by the fleeting appearances which move other men. He alone is wise, he alone is competent to make laws for the State, for he sees truth that is beyond the ken of warriors and laborers. It is his duty to command, theirs to obey. The characteristic virtue of the warrior class is courage. It is the function of this class to face the enemy in defense of the State. Its members must meet danger and death with an unwavering spirit. All their training must be directed to the cultivation of this virtue. They need not be wise but they must be courageous. Not theirs to know but to do, and that with a force which conquers all opposition. The third class of Plato's ideal State is composed of the laborers, the untrained, undisciplined common people, the rabble. They are impulsive and tempestuous in character. Their desires are many and they lack self-control. They must be held in check by the other two classes, the rulers who know what is best for them and for the State, and the warriors who are to protect the State from injury. This restraint and obedience produces a sort of harmony between the classes, which Plato calls temperance. In a peculiar sense it is characteristic of the lowest class, and yet it belongs to all classes.

But what of justice in the State? We have watched the growth of the State from its beginning to its ideal form, and now we find that justice is a virtue belonging to the State as a whole, and consists in "this quality * * * of one doing his own work." "When the trader, the auxiliary and the guardian do their own business, that is justice and will make the city just." If temperance is the harmony produced by the restraint of the lower by the higher, justice is the harmony produced by every element of the State performing its own proper function and all elements working together in harmonious accord. It is "the ultimate cause and condition of the existence of all the virtues. Here then is justice in the State.

But what of justice in the individual? Only on the condition that the individual is in nature similar to the State, and in some respects comparable to it, will our investigation thus far be of value in answering this question. But for Plato there is no difficulty here, for he regards the State as the institutional expression of man's nature. As there are three classes in the State, so there are three grades and kinds of power in a man. The lowest is appe-

tite which must be restrained and governed by the higher powers. The next is spirit, which, when properly used, is a means of protection to the individual. The highest is reason, which must guide the exercise of spirit and direct the control of appetite. The spirited principle is to become the ally of reason in the control of desire. The individual whose several principles do their own work, will be just. The rise of justice in the individual is just "the creation of a natural order and government of one another in the parts of the soul." This psychology of the individual will command our careful attention at another time.

A belief that any form of institutional life has become perfect and that consequently it ought to become fixed and permanent and all individuals molded to it, is likely to be a curse to the society in which it prevails. Belief in perfection accomplished, means stagnation, and ultimate retrogression. Confidence in imperfection with the possibility of progress, means constant growth. For three thousand years China has obeyed the laws of the fathers and the nation is crumbling to pieces. Fifty years of shrewd association with new ideals, have made Japan a new nation. Perfection is not a fact but an ideal in both institutional and individual life. Plato's ideal Republic as given in the dialogue of the same name is a conception of his imagination never realized in actual experience. In the laws he apparently recognizes its impracticability and modifies it considerably. But throughout he admits the principle of development—a principle that has become the center of modern scientific thought, and one which the alert teacher sees illustrated in the school as an institution and in every individual member of it.

Plato's political ideas are not in every way acceptable to us now but they are not lacking in interest or suggestiveness.

To recapitulate. 1. The search after justice leads to the discussion of the nature of the State and of the individual. 2. The State arises out of the needs of men—it grows, and it differentiates into classes. 3. In the ideal State there are three classes each with a characteristic function. 4. Every man should join the class for which he is best fitted. 5. Education largely determines character. 6. Individual interests should always be made subject to those of society. 7. Justice in the State consists in "every one doing his own work. 8. Individual human nature is comparable to the State and justice in the individual consists in a natural harmony of the various impulses. 9. Plato's principle of growth and development is vital.

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SCHOOL MANAGEMENT.

NOTE.—See *School Management*, by Tompkins, Ginn & Co., publishers, price 90c., for full discussion of this subject.

I. SCHOOL MANAGEMENT.

1. Idea.
2. Two distinct phases of
 - a.
 - b.

(See *INDIANA SCHOOL JOURNAL*, Nov. 1891, pp. 635-638.)

3. Importance of having pupil's individual attention on the lesson.

a.
b.
c.
d.

(See INDIANA SCHOOL JOURNAL, December, 1891, pp. 695-698.)

4. Influence of neatly kept school rooms.

5. "The character of the teacher's whole education appears in his management" of the school.

7. Leading conditions and means to unity in the class studying :

a.
b.
c.
d.
e.
f.

(See INDIANA SCHOOL JOURNAL, January, 1892, pp. 12-16.)

8. Law of unity applied to the class reciting :

a.
b.
c.

(SCHOOL JOURNAL, February, 1892, pp. 100-104 and March, 1892, pp. 153-155.)

School management is the process by which all of the acts of the individuals constituting the school are brought into the unity of the teacher's mind and pupil's mind in the process of teaching. The fundamental law of school management is derived from the nature of the teaching act,—an act in which the mind of the teacher and that of the learner become one. School management is to secure this oneness.

The basis of unity is in the will ; the teacher and pupil agree to co-operate in a mental process ; and all other agents in the school organism purpose to strengthen that co-operation. This is the fundamental condition of the organization of the school, and the normal condition is that all are perpetually choosing the unity described. Some choose ignorantly or wilfully, to break the unity. This broken unity school management must restore. Thus we arrive at, on the basis of the attitude of the mind towards the school organization, two distinct phases of management ; *first*, how to secure unity under the assumption that all minds have a proper attitude toward the end sought ; the other, how to restore unity when ignorantly or wilfully broken. The teacher's problem is ever with the will ; in the one case, how to favor it and direct it into the unity to which it is already disposed, in the other how to reverse its tendency and secure its co-operation.

The law of unity requires all the mental energy of the pupil upon the subject under consideration. Therefore, the conditions must be such as not to divert a portion of his energy to something aside from the line of discussion. One case diverting the energy from the thought in the lesson is the pupil's uncomfortable bodily condition. The pupil's physical condition must be such that he does not think of self.

(a) The seats should be so comfortable that the body is kept rested—should be the shape of the body, and neither too high nor too low.

(b) The air should be kept at the proper temperature. If a pupil is chilled his attention is directed to himself ; and in a school of forty chilled pupils, there are forty unities instead of one.

(c) The effect of bad ventilation on the desired mental unity is obvious. Drowsiness and depression weaken and divert mental energy, and prevent the fullest co-operation of thought in the line of discussion.

(d) The light may so fall on the pupil's work as to divert his attention from the thought in the lesson.

Thus all these points, seating, heating, ventilating and lighting are the conditions to receive attention in securing unity in the act of instruction.

If the attention is not diverted from the lesson to self it may be attracted to some other object, aside from the line of thought. This may be occasioned through one of the senses, especially through touch, sight or hearing, or by some preceding train of thought in which the mind is absorbed.

(a) Because objects which the pupil may touch are apt to attract his attention, all objects, other than those required for immediate work, should be removed from the desk.

(b) Since attention is apt to be attracted through the eye, all unnecessary movement should be avoided, and all objects in the room orderly bestowed.

(c) Most effective of all means of diverting the attention is noise, therefore silence should be the law of the school-room.

(d) Little can be said to free the mind from prepossessing moods and trains of thought. The opening exercise has a value at this point upon pupils. The opening exercise draws their minds to a center. The music melts their minds into a common mood; and the Scripture lesson recalls them from their rambling and tones their thought for the labor of the day. I believe that the opening exercise is justified on the score of school management as well as on account of religious culture.

The leading conditions and means to unity in the class studying, are the following:

(a) The condition to receive attention first, is that of *classification*. This is one of the most distressing problems with which the teacher has to deal, especially in country schools. All the pupils in the class must be of such ability that each may join with the teacher in the same thought, must be as nearly of the same ability as possible.

(b) The ideal to be secured in the class studying, is the undivided and the greatest possible stress of attention on the thought assigned to be worked out. This is unity, not precisely of pupils among themselves, but unity with the teacher; although the teacher is at the time conducting a recitation. It is unity with his thought and purpose.

(c) The lesson should be so clearly and definitely assigned that the pupil can neither escape nor mistake what is to be done. Often a written assignment of the lesson on the board will hold the pupil to a more definite study, and the teacher to a more definite assignment.

(d) After each pupil has decided just what he is going to do, he must note whether he has all things needed for the work, and whether anything about him is not needed.

(e) When each mind is made clear as to the work to be done, and all the wants have been supplied, some quiet signal, as a nod, all the pupils attentive to the teacher, should be given.

(f) While conducting the recitation no pupil in the class studying should be permitted to change work, speak to anyone, get any thing which should have been supplied before, fix the fire, ask the teacher about the lesson, etc. I do not mean that there are no circumstances under which the pupil may not move and accommodate himself to his work. If the stove becomes too warm he should move, and without asking the teacher. Freedom of the pupil under his own judgment as to what is proper, is the only way to secure the unity desired, and to cultivate the power of self-control.

(a) One of the general conditions essential to unity in the class reciting is that of the proper size of the class and the equal ability of its members. There is no absolute standard for the size of the class. Primary classes should be smaller than those more advanced. The more mature and the better trained the pupils, the larger the class can be without breaking the unity of action.

(b) The other general condition essential to unity is that of thorough preparation on the part of both teacher and pupil. On the part of the pupil, this has been provided for in the study hour. No source of failure is so fruitful as the lack of preparation of the lesson by the teacher. The teacher must have so mastered the lesson that he feels his freedom in the thought to be presented. Vague and partial knowledge can not guide and strengthen. The thought of the lesson must have been so mastered that the teacher will feel perfectly at home in whatever new and unexpected turn the discussion may take; and such turn it is sure to take.

(c) The next step is to secure the outer form of unity and the attitude of attention. The desks should be cleared of everything not needed for the recitation. The class should be seated in a compact form, and there should be no vacant places within the compass of the class. Now, with the eye of the pupil fixed upon the teacher, in obedience to some noiseless signal, all is ready for the thought-movement of the class.

ARNOLD TOMPKINS.

SOLUTIONS REQUESTED.

[From the *Indiana Complete Arithmetic*, Page 323.]

Ex. 28. Four times a certain number, plus $\frac{3}{5}$ of the number, plus 3, equal five times the number. What is the number?

Solution: As 4 times a certain number, plus $\frac{3}{5}$ of the number, plus 3 = 5 times the number,—

Then, if "4 times a certain number" is not counted in, the " $\frac{3}{5}$ of the number" + 3 must = 1 time the number.

If $\frac{3}{5}$ of the number + 3 = the number, (or $\frac{2}{5}$), then, the 3 represents $\frac{2}{5}$ of the number. If 3 is $\frac{2}{5}$ of the number, the number, or $\frac{15}{2}$, = 9.

Ex. 31. John had 30 cents more than Frank: if 3 times Frank's money equaled John's, how much money had each?

Solution: John's money = 3 times Frank's;
 Frank's money = 1 time Frank's;

The difference between John's money and Frank's money is the difference between 3 times Frank's money and (1 time) Frank's money, or 2 times Frank's money. Hence, 2 times Frank's money = 30 cents; therefore, Frank's money = 15 cents, and John's money = 45 cents.

Ex. 33. Tracy is $\frac{1}{4}$ as old as Warren, and Warren is $\frac{1}{4}$ as old as Mr. Brown; if the sum of their ages is 104 years, how old is each?

Solution: If 1 represents Mr. Brown's age,
 $\frac{1}{3}$ of 1, or $\frac{1}{3}$, will represent Warren's age,
 and $\frac{1}{3}$ of $\frac{1}{3}$, or $\frac{1}{9}$, will represent Tracy's age.
 The sum of 1 and $\frac{1}{3}$ and $\frac{1}{9}$ = $\frac{13}{9}$;
 hence $\frac{13}{9}$ of Brown's age = 104;
 $\frac{1}{9}$ of Brown's age = 8;
 and $\frac{8}{3}$, or Brown's age = 72.
 $\frac{1}{3}$ of 72 = 24, Warren's age.
 $\frac{1}{9}$ of 24 = 8, Tracy's age.

Ex. 35. The sum of two numbers is 20, and $\frac{1}{2}$ of the smaller equals $\frac{1}{3}$ of the greater. What are the numbers?

Solution: If $\frac{1}{2}$ of the smaller = $\frac{1}{3}$ of the greater,
 then, the smaller = $\frac{2}{3}$ of the greater.
 Now, the greater = $\frac{3}{2}$ of the smaller,
 and both together = $\frac{5}{2}$ of the smaller.
 That is, $\frac{5}{2}$ of the smaller = 20;
 $\frac{1}{2}$ of the smaller = 4;
 and $\frac{3}{2}$ of the smaller = 12;
 20 - 12 = 8, the smaller.

Ex. 36. Divide 45 so that $\frac{3}{4}$ of one part will equal $\frac{2}{3}$ of the other.

Solution: If $\frac{3}{4}$ of one part = $\frac{2}{3}$ of the other part,
 $\frac{3}{4}$ of one part = $\frac{2}{3}$ of the other part,
 and $\frac{3}{4}$, or one part = $\frac{8}{9}$ of the other part.

If one part = $\frac{9}{8}$ of the other, which is $\frac{9}{8}$, then both parts = $\frac{15}{8}$, or 45;
 $\frac{3}{4}$ = 3; $\frac{2}{3}$ = 21, the less; $\frac{9}{8}$ = 24, the greater.

CORY is the principal town in Perry Township, Clay County, Indiana, and it has a new school building that is worthy of special notice. The building is to serve the entire township for high school purposes. This is probably the best township house in the State, in a town of the size of Cory. Sargent Staggs is the township trustee, who deserves most of the credit for this achievement. He and the entire township have a right to feel proud of such a building. This house was dedicated September 17th, State Superintendent D. M. Geeting making the principal address. The program included a number of other addresses and a basket dinner. The writer was present and assisted what he could—especially at the dinner. The Brazil band made the music for the occasion. Another pleasant feature was a flag drill by pupils, directed by Miss Mollie Ewart. County Superintendent W. H. Chillson directed the exercises and seemed happy, as he had a right to be. It was a long-to-be-remembered celebration.

QUESTIONS AND ANSWERS.

STATE BOARD QUESTIONS USED IN SEPTEMBER.

HISTORY.

1. *What distinction should be made between the Pilgrims and the Puritans who settled in New England?*

The Puritans were members of the established church, who regarded the Protestant revolution in England as incomplete. They urged that the English worship should be "purified" (as they said) from what Calvin called "Popish dregs." They desired the Episcopal clergy to give up wearing the surplice, making the sign of the cross in baptism, and using the ring in the marriage service. The Separatists were a branch of the Puritans who had gone a step farther. "Seeing," as they said, that "they could not have the word freely preached and the sacraments administered without idolatrous gear, they concluded to break off from public churches and separate in private houses." They not only disliked the forms and ceremonies of the English church, but they also disapproved of church-government by bishops. They wished to have a church in which the people only should rule. In the early part of the reign of James I., a number of people in the village of Scrooby undertook to form such a church; but they were regarded as rebels and were hunted down, and some of them were thrown into prison. At last in 1608, they escaped to Holland, where they were allowed to remain in peace and to worship as they pleased. Not wishing their children to intermarry with the Dutch, they decided to go to America. By reason of their wanderings they were called Pilgrims.

2. (a) *What reasons were given by the English for the deportation of the Acadians?*

(b) *To what extent is Longfellow's *Evangeline* true to history?*

(a) During the same summer that Braddock was defeated, the people of Acadia were removed from their homes. Acadia was included in what is now Nova Scotia and New Brunswick. It was settled by the French early in the seventeenth century and about one hundred years later (1710) was captured by the English. For forty-five years it had been under English rule. But the simple-minded, ignorant peasantry continued to speak the French language and to take sides with the French in every struggle with the English. In this way they did much injury to the English cause. Accordingly, in 1755, some troops from New England landed in Acadia and told the inhabitants they must promise to support the English king or they would be sent out of the country. More than 5,000 of them refused, and they were torn from their homes and scattered among the colonies from Massachusetts to Georgia. A large number of them found their way to Louisiana, where many of their descendants may be found to-day. This removal caused much hardship, but it seemed to be a military necessity.

(b) In the haste and confusion of sending the Acadians off, many families were separated, and some at least never came together again. The

story of Evangeline is a story of such a separation ; and the feelings, sentiments and characteristics of the personages used in the poem, and its main incidents, have their counterpart in the actual occurrences of the banishment.

3. *Why is Burgoyne's defeat and surrender considered one of the fifteen decisive military events of the world ?*

It is so considered because of its far-reaching and important results as follows: (1) It saved New York State. (2) It destroyed the plan for war. (3) It induced the king to offer us peace with representation in Parliament, or anything else we wanted except independence. (4) It secured for us the aid of France.

4. *What was the object of the celebrated "Ordinance of 1787," and what were its chief provisions ?*

The object was to establish some kind of government for the settlers of the northwest territory. Its chief provisions were as follows: 1. That the whole region from the lakes to the Ohio, and from Pennsylvania to the Mississippi, should be called "The Territory of the United States Northwest of the River Ohio." 2. That it should be cut up into not less than three nor more than five states, each of which might be admitted into the Union when it had 60,000 free inhabitants. 3. That within it there was to be neither slavery nor involuntary servitude except in punishment for crime.

5. *What were the causes of war as set forth in President Madison's proclamation of war with Great Britain in 1812 ?*

The causes of war as set forth in the proclamation were: 1. Tampering with the Indians, and urging them to attack our citizens on the frontier. 2. Interfering with our trade by the Orders in Council. 3. Putting cruisers off our ports to stop and search our vessels. 4. Impressing our sailors, of whom more than 6,000 were in the British service.

6. *What different conditions in the northern and southern states caused sectional divisions to come up upon the question of (a) extension of slavery, (b) internal improvements, (c) protective tariff ?*

In the warm and sunny south where tobacco, cotton, and rice were raised and shipped, it seemed to be necessary to have slaves. They had been gradually driven from the north by the cold rigorous climate. The rapid settlement of the Mississippi Valley made a demand for roads, canals, and river improvements ; settlement in the south was progressing so slowly that a similar demand there did not exist. Of course the people of the west and middle states would favor the plan of having the government pay for all the internal improvements. In the early history of the United States, New England became the manufacturing region, and the middle and western states the section producing wool, iron, and hemp. Hence these portions of the country were generally a unit in favoring a tariff, while the south, which had a constantly increasing foreign demand for their cotton, found it to their interest to purchase English goods in exchange. Hence the south were almost solidly opposed to a protective tariff.

7. *Two great financial problems were presented for solution at the close of the Civil War. (a) How to dispose of the bonded debt. (b) How to resume specie payments. State briefly how these problems were solved?*

As to the first question, it was decided to pay the bonds as fast as possible; and by 1873 the debt was reduced by more than \$500,000,000. As to the second question, it was decided to "contract the currency" by gathering into the Treasury and there canceling, the "greenbacks." This was begun, and their amount was reduced from \$449,000,000 in 1864 to 356,000,000 in 1868. By that time a large part of the people in the west were finding fault with "contraction." Calling in the greenbacks, they held, was making money scarce and lowering prices. Congress, therefore, in 1868 yielded to the pressure, and ordered that further contraction should stop and that there should not be less than \$353,000,000 of greenbacks. Not till 1875 was the final act passed by which in 1879 specie payment was resumed.

First. Under this law, silver 10, 25, and 50 cent pieces were to be exchanged through the postoffices and subtreasuries for fractional currency till it was redeemed.

Second. Surplus revenue might be used and bonds issued for the purchase of coin.

Third. That part of an act of 1870 which limited the amount of national bank notes to \$356,000,000 was repealed.

Fourth. The bank could now put out more bills; but for each \$100 they put out, the Secretary of the Treasury must call in \$80 of greenbacks, till but \$300,000,000 of them remained.

Fifth. After January 1, 1879, he must redeem them all on demand.

ARITHMETIC.

1. *What importance do you attach to the use of blocks in the teaching of square and cube root?*

In teaching square and cube root, the use of blocks, gives concreteness to the ideas, or steps, in the process. This aids both the memory and the understanding.

2. *Find the value of each of the following:*

$$\sqrt{15^2 \times 25^2}. \text{ Answer, } 375. \quad \sqrt[3]{41\frac{1}{8}}. \text{ Answer, } \frac{7}{8}.$$

3. *What do you consider the simplest way of making reasonably clear to a child who has never studied Geometry the fact that "the area of the circle is equal to the square of the diameter multiplied by .7854."*

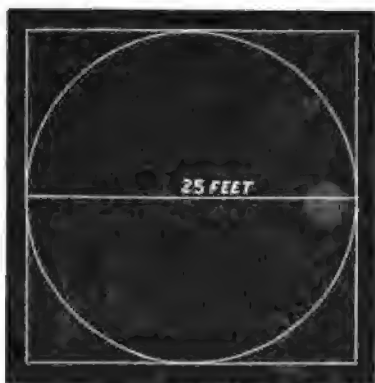
First. Draw a circle on the blackboard, with any convenient diameter, say 12 inches, and draw a square around it with its sides touching the circle. The side of the square will be 12 inches.

Second. Ask the class how to get the area of the square, and what the area is.

Third. Ask the class *what part* of the area of the square the area of the circle is. Various answers will be given, some of which will be $\frac{3}{4}$, $\frac{1}{2}$, etc.; here is the teacher's opportunity to state that $\frac{1}{4}$ is nearly correct, and that

$\frac{3}{4} = .75$, and if we multiply 144, the area of the square, by .75, we will have a fair answer to the area of the circle. Lastly state that the .75 is not quite large enough, and that close investigation has resulted in finding that .7854 used as a multiplier gives an answer that is very close to the true area. And that a circle is $\frac{7854}{10000}$ of its circumscribed square.

4. Illustrate your plan in the solution of this problem. Find the area of a circle whose diameter is 25 feet.



(a) $25 \times 25 = 625$, number of square feet in the square.

(b) .7854 of 625 = 490.875, the number of square feet in the circle.

5. A man's farm lying along a railroad, is of this shape and these dimensions. He sells it for \$75 per acre. What did he receive for it?



Draw two lines, dividing the figure into two rectangles and two triangles. The area of the smaller rectangle is 60×80 square rods = 4800 square rods; the area of the smaller triangle is $\frac{1}{2}$ of 20×80 square rods = 800 square rods; the area of the larger rectangle is 80×160 square rods = 12,800 square rods; the area of the larger triangle is $\frac{1}{2}$ of 20×160 square rods = 1,600 square rods; $4,800 + 800 + 12,800 + 1,600 = 20,000$, number of square rods, or 125 acres, which at \$75 an acre, amounts to \$9,375.

6. I paid \$360 for insurance on $\frac{3}{4}$ of the value of my property for a term of five years, the total rate charged being 2 per cent. What is the value of the property?

$2\% = \$360$; $1\% = \$180$; $100\% = \$18,000$, or $\frac{3}{4}$ of the value of the property. Hence, the property is worth \$24,000.

PHYSIOLOGY.

1. Locate the sciatic nerve.

The great sciatic nerve is the largest nervous cord of the body, and

arises from the sacral plexus and passes down the back of the thigh. It passes out of the pelvis through the great sacro-sciatic foramen, below the Piriformis muscle. It descends between the trochanter major and tuberosity of the ischium, along the back part of the thigh to about its lower third, where it divides into two large branches, the internal and external popliteal nerves.

2. *Describe the gross and minute anatomy of some voluntary muscle.*

The Gastrocnemius muscle forms the greater portion of the calf of the leg. It arises by two heads, which are connected to the condyles of the femur by two flat tendons, each of which spreads out into an aponeurosis which covers the posterior surface of that portion of the muscle to which it belongs. It is made up of bundles of fibres; each fibre is enclosed in a delicate sheath, the sarcolemma, and consists of a great number of minute fibres, (fibrillae) marked crosswise with dark stripes and separable into disks. The whole muscle is covered in its own sheath of connective tissue called *fascia*.

3. *What is the difference between a white and a gray nerve fibre?*

Some nerve fibres have no inner sheath (medullary), the outer alone protecting the axis-cylinder. These are known as the non-medullary fibres. They are gray, while the ordinary medullary fibres are white in appearance.

4. *What causes a chicken to jump about after its head is cut off?*

The movements of a decapitated fowl are due to the reflex action of the spinal cord. An irritation is necessary to start the action. The muscles of the fowl are excited to convulsive action by reason of its being thrown upon the hard ground. The actions are instinctive efforts to escape danger. When the body is laid gently upon something soft, it remains comparatively quiet.

5. *What parts of the blood carry the oxygen to the tissue?*

The red corpuscles.

6. *Give the location and function of the thoracic duct.*

The lacteals unite to form larger and larger tubes, which run across the mesentery, and finally open into a single tube, the thoracic duct, running up the spinal column. This is a tube as large as a goose quill, and opens into a large vein at the root of the neck, where emulsified fat from the intestines first reaches the blood. Its function is to convey into the circulation about three-fourths of the products of intestinal digestion, and about that part of the lymph of the lymphatic system.

7. *Describe the mechanisms that cause the blood to flow into and out of the lungs.*

The right auricle contracting, closes the tricuspid valve and blocks the way backward. The blood is therefore forced through the open semilunar valves into the pulmonary artery, which by its alternate expansion and recoil, draws the blood along until it reaches the pulmonary capillaries, surrounding the air cells of the lungs, and here an exchange takes place which purifies the blood; it is there ready to return to the heart. When the chest

enlarges there is a sucking action, not only upon the outside air, but upon the outside blood, and the air through the trachea and the blood through the veins are sucked heartward. Hence, the flow of the blood from the lungs to the heart, is due chiefly to the mechanism of respiration.

8. *What is the ratio of carbon dioxide in exhaled air to that of inhaled?*

The composition of inspired air is about as follows: Nitrogen, 79 per cent; oxygen, 20 per cent; carbon dioxide, .04 per cent; and water vapor. The composition of expired air is about as follows: Nitrogen, 79 per cent; oxygen, 15 per cent; carbon dioxide, .04 per cent; and water and organic substances. Hence, the ratio is as 4 to .04, or as 1 to .01, or as 100 to 1.

GRAMMAR.

1. *Follow with some degree of fullness the subjoined outline in a discussion of the "Steps leading to good composition writing:"* (a) *Early training necessary.* (b) *Degree of interest needful on the part of the learner.* (c) *Selections of subject.* (d) *Instruction in the "modus" of composition writing.* (e) *Analysis of subject and preparation of outline.* (f) *Judicious criticism.*

Early training is necessary. The child's vocabulary must be increased in every possible way, his vocal expression must be made clear and accurate, and proper forms of speech must be made habitual. In all this, the method and vivacity of the teacher should be such as to awaken, promote, and continue a lively interest, in order that the pupil's interest may keep his attention keen and his efforts voluntary, earnest, and persistent. In choosing a subject, the pupil's knowledge and sphere of life must be considered. The story of a dog, or of a kitten, real or imaginary, opens up phases of life and language that are familiar to the pupil, or within his grasp, and affords the teacher a great number of opportunities for correcting wrong words and expressions, and for training in correct ones. The subject should be within the grasp of the pupil. The subject chosen, the teacher and pupil should have a conversation about it, in which the teacher, by questions or by illustrations, will reveal the way the child is to proceed. If the subject is one that can be readily outlined, the teacher and pupils, at first, should together work out and arrange the points to be considered, and should then discuss them freely, until the information of all becomes the common property of each. Then let the pupils write, and *then they will write*. After each has completed and revised his composition, they may all be handed to the teacher, who should select one and criticise it carefully, using good judgment as to the kind of errors that the pupils can understand and avoid. The teacher, now, being fully prepared himself, may write this composition on the black-board just as the pupil has it, and use it for a class exercise in criticism. Here the teacher has an opportunity to teach. By his judicious questions and suggestions he can wonderfully strengthen the class in language expression. Line by line or sentence by sentence can the composition be improved. Then let the teacher hand the composition back to the pupils, each one to thoroughly revise his own, and hand in

again. If need be, the teacher may repeat his black-board lesson with another pupil's composition; but in all likelihood, each pupil's work is now ready to copy into his composition book. In doing so the pupil may make any further changes that may seem to be necessary or appropriate. (In Language Arts, read pages 117, 118, 119, 122, 123, 191, 192.)

SCIENTIFIC TEMPERANCE.

1. *What is the greatest danger from the drinking of alcoholic beverages?*

The greatest immediate danger is the loss of health, business and character. The greatest remote danger is the transmission of disease and of the desire for drink to posterity.

2. *What causes the smell of alcohol in the exhaled air?*

Alcohol, when taken into the stomach, is carried from that organ to the liver. From the liver it passes into the right side of the heart, and thence to the lungs. Here, a portion of it in a vaporous state, passes into the air cells and its odor is recognized in the exhaled air. It is not digested as food, but much of it is absorbed from the stomach and passes direct into the circulation.

3. *What effect has alcohol on the combustion of fats? How does this effect the body in general.*

Alcohol prevents the combustion of fats, because it robs them of the oxygen necessary for their combustion. This finally results in fatty degeneration, especially in the liver, yet other organs are also affected. At last the whole system suffers.

4. *Contrast the effects of an overdose of coffee with those of an overdose of whisky.*

An overdose of coffee, especially at night, causes wakefulness, and sometimes produces muscular tremors, nervous anxiety, sick headache, palpitation, and various uncomfortable feelings in the cardiac region. An overdose of whisky, produces a narcotic effect. The brain is benumbed and intoxication ensues. In a short time the victim suffers nausea, headache, and general weakness of body.

5. *What is the effect of alcohol on the emotions?*

Alcohol deadens the emotions so the drunkard not only loses respect for himself, but for others who may be very dear to him when sober. He loses all sense of pride, and has no regard for the opinion of others. Sometimes a drunkard's whole attitude or regard for a person, is completely changed while he is under the influence of liquor.

6. *Classify the liquids consumed by man, according to their use in the body.*

Water and milk are the only liquids absolutely healthful and nutritious. Tea, coffee and cocoa are slightly nutritious and temporarily stimulating; they are harmful in various ways when used to excess, or even in moderation. Alcoholic beverages are not nutritious and are exceedingly harmful.

GEOGRAPHY.

1. *To what extent should the study of geography be combined with that of history?*

Wherever locality in history is referred to, its nature and its relation to its surroundings should be carefully worked out, in order that the historical incident or idea may be made more real and vivid, *i. e.*, in order that the reader of history may, in a sense, live it.

3. *A class is taking up the study of Europe; make a brief outline of the first lesson you would assign, with reasons for each step in the assignment.*

(a) *The boundary; the size, absolute and relative; and its climatic position.* (This first topic looks at Europe as a whole, a necessary idea to a definite grasp of the details.)

(b) *The physical divisions, the drainage, the mountains, plateaus, and plains.* (This second topic breaks the unit into its natural divisions, and prepares the way for a clear understanding of it as a home for man).

(c) *Drawing a sketch of Europe.* (At this stage the physical features should be firmly impressed upon the pupil's mind by drawing a sketch).

(d) *The people.* (We are now ready for the human life manifested in this portion of the earth).

(e) *The political divisions and man's institutions.* (This topic now comes as the work of man, based on his beliefs, his conveniences, and necessities, and modified by different climatic conditions and physical features).

4. *How are deltas formed? Name three important deltas.*

(See any good text.)

5. *"In the sixth and seventh years the aim of geography should be the study of man in the various parts of the globe, living in the different zones, surrounded and affected in his institutional life by different climatic conditions, mountains, plateaus, valleys, oceans and inland waters." Is the above quotation in harmony with the latest methods of teaching geography? Give reasons.*

(a) It is. (b) For reason, see answer to (3).

READING.

1. *"A book may be likened to a phonograph, which speaks or sings only to an ear like the ear of him who first spoke the speech or sung the song." Comment on the meaning of the above.*

Whenever a mind that has had the same experiences as those of the author, is brought into relation with the author's mind, through the language symbols, then the reader is in touch with the author and the language is to him full of meaning. He lives the ideas as the author lived them, and appreciates them in the same degree as does the ear listening to the phonograph, when it is "like the ear who first spoke the speech or sung the song." (See page 69, Language Arts.)

2. *To read is to become one with the author. Show how this unity may be brought about and indicate what guidance it offers to the teacher.*

It is not always easy to bring this union about. Our school readers should be graded and prepared to suit, to a certain degree, the persons who are to use them. Pupils who live in the city should become familiar with the country and with nature. The teacher's illustrations and explanations of places and things that the pupils cannot see, should be real and vivid, in order that the pupil's knowledge of them may be as perfect as possible, without seeing them. In short to enable the pupil to become one with the author, we should by every means possible, enlarge the pupil's life in every possible sphere, and train his emotions to an acute sensitiveness of appreciation. This can be done by a teacher who possesses this characteristic and who lives a large life. (See pages 82-83.)

3. *Show in what sense "learning to read," is "the crisis of our educational system."*

Learning to read is the crisis of our educational system because unless one does learn to read, the gates to nearly all the avenues of knowledge, as others have found it, are forever closed to him. "Through the printed page the reader comes into relation with the men who have rammed the literature with life." (See pages 69 and 70.)

4. *Into what three groups may school studies be divided on the basis of their use or function? To which of these does reading belong?*

(a) *The guidance studies*, which furnish us with information or knowledge that is of immediate practical value in the works of life. (b) *The disciplinary studies*, which stimulate the observing and thinking faculties to action and so develop the mind. (c) *The culture studies*, which supply tilth to the mind. Learning to read, in itself, is a culture study; but it is the foundation of the group of guidance studies and it affords a valuable mental discipline. (See pages 71, 72 and 73.)

5. *Explain carefully what is meant by each of these three classes of studies.*

(See pages 71, 72, 73.)

SCIENCE OF EDUCATION.

1. *In the Protagoras, Socrates appears in contrast with the higher Sophists. What are the principal points of contrast?*

They are two: (a) The Sophists have views which often appear excellent, but which are self-contradictory and for which in any case they can give no deep and real reason. Socrates wishes to judge the questions in issue from the standpoint of absolute truth as revealed by philosophy. (b) The sophists put this trust in Rhetoric, in the forms of discourse which charm and persuade. Socrates chooses the less attractive method of cross-examination. (See "Plato," pages 64 and 65.)

2. *What does Protagoras mean by the contention that virtue can be taught?*

He means that by study and learning, a virtue in which we are defi-

cient may be taught; that by the infliction of rational punishment a virtue may be taught; that the whole process of rearing a child to maturity proves that the virtues may be taught. (See pages 83 to 89.)

3. *What is the view of Socrates on the question as to whether virtue can be taught?*

That virtue can be taught means with Socrates that it can not be brought to one from without, but that it can be awakened in one by proper influences, it being formerly born in him. (See page 64.)

4. *Give Hippocrates's idea of the purpose of punishment. (Should not "Hippocrates" be Protagoras?)*

If so, see page 85.

5. *In his talk with Protagoras does Socrates seem to show any insincerity?*

It is impossible to give a definite answer. We are not sure about his sincerity in the following, page 97: "Do not imagine, Protagoras, that I have any other interest in asking questions of you but that of clearing up my own difficulties," and so on. (See also page 102, last paragraph.)

6. *Tell the Myth of Prometheus. What is the point made by the story?*

(a) See pages 81 to 84. (b) That every man has a share of the virtues, and that virtue may be taught.

MISCELLANY.

VORIES'S BUSINESS COLLEGE made a good showing at the State Fair.

INDIANA UNIVERSITY opened *full*—expects 800 before the close of the year.

THE STATE NORMAL SCHOOL opened with nearly five hundred students.

MARTINSVILLE.—The school started off with a full attendance with W. D. Kerlin in charge.

SOUTH WHITLEY sends out a neat catalogue that makes a creditable showing for its schools. Geo. H. Tapy is superintendent.

THE TOWNSHIP OUTLINES for 1898 are most excellent. The appendix on Arbor and Bird Day will certainly be appreciated by teachers.

HANCOCK COUNTY.—With W. L. Bryan and L. J. Rettger as instructors, and Lee O. Harris as superintendent, of course we had a superior institute.

FRANKLIN COLLEGE opened with an increased attendance. The college deserves a large patronage. W. T. Stott has been the efficient president for many years.

THE INDIANAPOLIS high school opened this year with an enrollment of

937. Geo. W. Hufford, who has been the efficient principal for many years, is still in charge.

RENSSELAER.—The School Manual shows what the superintendent, W. H. Sanders, is aiming to do for the children through his teachers. It makes a good showing.

DE PAUW UNIVERSITY opened with an increased attendance. This is very gratifying to its friends, as it was feared that the present financial trouble might affect it adversely.

EARLHAM COLLEGE, Richmond, opened this year with an unusual attendance and with bright prospects. President J. J. Mills and vice-president J. F. Brown, head a strong faculty.

ANTIOCH COLLEGE of Yellow Springs, Ohio, (Horace Mann's College,) has been renewed in many regards and is doing good work. D. A. Long is president. Write him for information.

JACKSON COUNTY, outside of Seymour and Brownstown, has twelve graded schools. All the schools of this county outside the towns opened October 3. J. E. Payne is county superintendent.

UNION CHRISTIAN COLLEGE, Merom, Indiana, had an unusually prosperous year closing last June and is making an excellent start for 1898-9. President Aldrich is directing affairs very satisfactorily.

PIKE COUNTY held a good institute at Winslow. The instructors were F. D. Churchill and E. W. Bohannon, and the teachers liked their work. They make a good team. Wm. S. Corn is the county superintendent.

WELLS COUNTY held its institute September 12-14, with E. B. Bryan and J. L. Orr as instructors. It was Mr. Bryan's eighth institute and he was at his best. County Superintendent Stine knows how to run an institute.

THE SHERIDAN SCHOOL MANUAL shows that seventeen teachers are employed, with M. H. Stuart as superintendent and W. L. Cory as principal. It also shows that the schools have a good library, and a fairly good laboratory.

POSEY COUNTY—"The institute was one of the best if not the best ever held in the county." How could it be otherwise with E. B. Bryan and Mrs. Emma Mont McRae as instructors? Chas. Greathouse is giving good satisfaction as county superintendent.

"THE MISSOURI COMPROMISE" is the name of a thirty-nine page pamphlet, by N. C. Hieronimus, of Richmond. It is well written and will certainly be helpful to teachers wishing to get a full understanding of this chapter of United States History.

RICHMOND has ten school buildings, employs eighty-two teachers, enrolls three thousand eight hundred pupils, with three hundred and seventy additional ones in the high school, and is one of the best school cities in the state. T. A. Mott is the superintendent.

INDIANA UNIVERSITY has decided to remove its Biological Station, held

for several years past at Turkey Lake, to Winona. The attendance this last year was very large, but there are several arguments in favor of the change. It will run independently of the Winona Assembly.

ALLEN COUNTY.—W. H. Mace and R. J. Aley gave this county an excellent institute. As the institute came late the Fort Wayne teachers attended in the afternoon, but this attendance was regular. Superintendent F. J. Young holds the reins of the institute in his own hands.

THE INDIANA STATE FAIR this year was a great success in everything but attendance and that would have been satisfactory had it not been for the bad weather. Everything had been well planned but people cannot be induced to attend a fair in the rain. The managers deserve sympathy, not criticism.

ADAMS COUNTY.—The workers in the institute were Bernard Bigsley, of Michigan, and L. W. Fairfield, of the Tri-State Normal, Angola. A report in a local paper says: "Yesterday closed the best institute ever held in Adams County. Every teacher joins in thanking Superintendent Brandyberry for the pedagogical treat of the week."

FRIDAY, October 28, has been fixed by proclamation of the Governor as Arbor and Bird Day. Let every teacher in the state observe it. In addition to the excellent program printed in the Township Institute Outlines, see other pages of the JOURNAL. The union of Arbor Day and Bird Day is certainly appropriate. Let the day be celebrated with a will.

MISSING JOURNALS WANTED.—Any one having any of the following Numbers of the JOURNAL, and who is willing to dispose of them will please correspond with the editor of the JOURNAL. The Numbers are desired by people who wish to complete their files. Please give matter immediate attention. November, 1868; April, May, June, 1869; August, 1871; July, 1881.

CENTRAL ACADEMY, PLAINFIELD.—R. S. Kelly has been unanimously elected principal of Central Academy for the seventh time. This year with the election the board "throws in" a year's leave of absence and he will continue his studies at the University of Chicago. J. F. Cox of the Noblesville high school will be acting principal. The attendance at the Academy has increased over seventy per cent. under the present management, and the course of study includes freshmen college work.

SCHOOL AND HOME EDUCATION, is the new name of *The Public School Journal*, edited by Geo. P. Brown, Bloomington, Ill. The paper will retain most of its old features and will add a School and Home department. The purpose is to bring the school and the home into close touch. Women's Clubs and Mother's Clubs will be enlisted and utilized as far as possible. The price of the paper has been reduced from \$1.50 to \$1.00. This is one of the best educational papers in the country, and this new feature will be pleasing to many of its old friends.

CENTRAL NORMAL COLLEGE.—The attendance is good for the fall. The regular classes are exceptionally large, the classic and scientific courses especially. The general attendance is as good as usual. The faculty now con-

sists of the same men and women that have been here for ten years or more. Professor Spillman has taken charge of his work again after a year's leave of absence. Everything seems very flattering. Ten states are represented by students present and more than two-thirds of the counties of Indiana are already represented. J. A. Joseph is the President.

WABASH COLLEGE.—The sixty-sixth year of Wabash College, Crawfordsville, Indiana, was opened on the 13th inst., by an address from Dr. J. E. Cleland, of Indianapolis, on "Culture and Patriotism." Over sixty young men were enrolled as new students. Prof. J. H. Osborne, the newly appointed professor in History and Political Geography, takes up his work with the opening of the college year. A considerable number of teachers, looking forward to a professional life work in that calling, are entering the college, attracted by the endowed scholarships established in June last. The College, with its equipment in plant and funds of a million dollars and its faculty, is doing work of the highest order. Geo. S. Burroughs is president.

MADISON COUNTY.—The teachers of Madison county think they had the best institute ever held in the state. Profs. Alford and Pattingill and Dr. G. Stanley Hall were the instructors. Dr. Hall did the work on Thursday and Friday and on these days ten adjoining counties were represented. Tipton county adjourned its institute and all went over to hear Dr. Hall's lecture on "Adolescence." Thursday was ex-Madison County Superintendent's day. The ex-County Superintendents were present and made short talks. They were: Howell D. Thompson, Wm. Croan, D. J. Crittenberger, W. S. Ellis, I. V. Busby and M. U. Johnson. On Wednesday evening Wm. Hawley Smith lectured on "Walks and Talks." Lawrence McTurnan is our excellent county superintendent.

FEWER DISTRICT SCHOOLS.

There is a general tendency all over Montgomery county this year to lessen the number of district schools, and all of the eleven township trustees are experimenting with school consolidation. Last year Trustee Morrow, of Coal Creek, was successful in reducing the number of his schools and carried on a fewer number less expensively and more satisfactorily by paying for the daily carriage of the children remote from the schools to and from school. His success has emboldened others to take the step this year. All the trustees have managed to reduce the number of schools by two or three, and the money so saved will allow them to have longer terms and to employ better teachers.

Trustee Gilkey, of Ripley, says that the schools which he abolished were costing him about \$5 a day each, and that all the expense he is now put to is for the transportation by hack of the pupils of the abolished schools to the ones where they are to be instructed. He has contracted with men for this work at the rate of sixty cents a day. Where it is possible the schools are held in some town or village. By concentrating the pupils from the outlying districts in these town schools they have the advantage of the graded school

system, and by means of the additional revenue given to the trustee by the abolition of a part of his schools the graded schools are rendered more efficient. The patrons of the districts where schools have been abolished are pleased with the new order of things.

THE FORGOTTEN GRAVE OF LAFAYETTE.

In the city of Paris there is a convent and garden known through the immortal Hugo's "Les Miserables." It is the convent of the Petit Picpus. In the grounds of this convent is a small cemetery where nearly 1,500 victims of the guillotine were buried indiscriminately. Here also repose the bones of LaFayette beside those of his wife who wished to be buried there. The resting-place of LaFayette, generally unknown and forgotten, is marked only by a plain granite slab. Upon a register kept by the concierge of the convent there are inscribed the names of but a small number of casual visitors.

In view of these facts, the "LaFayette Memorial Commission" has been formed for the purpose of erecting a monument to the memory of LaFayette as a twentieth century tribute from the people of this nation, to be unveiled with fitting ceremony, July 4, 1900, and thus grandly celebrate United States Day at the Paris Exposition. It is proposed that the cost of the undertaking, which is estimated to approximate a quarter of a million dollars, shall be defrayed by small contributions secured through the agency of the school children of our land.

Indiana will certainly do its part in this patriotic movement. For particulars, address the Secretary of the Memorial Commission, Robt. J. Thompson, Chicago.

PROGRAM CITY SUPERINTENDENTS' STATE ASSOCIATION.

Thursday, November 10, 7:40 P. M.—Report of Committee on Course of Study, W. D. Weaver. General Discussion; How Get Better State Text-Books? W. H. Sims. General Discussion; Business; Committees, etc.

Friday, 8:30 A. M.—Industrial Training in the Public Schools, Prof. Charles E. Emmerich; Discussion, led by W. A. Hester. Sloyd in the Public Schools, T. A. Mott; Discussion, led by R. I. Hamilton. The Kindergarten as a Part of the Public School System, W. A. Millis; Discussion, led by W. C. Belman.

Friday, 2:00 P. M.—Extension of the High School Course, S. B. McCracken; Discussion, led by J. A. Carnagey. How Get and Keep the Boys in the High School, J. H. Tomlin; Discussion, led by W. T. Brown. The Province of the High School Principal, C. M. McDaniels; Discussion, led by C. T. Lane.

Friday Evening, 7:30.—Electives in the High School, Edward Ayers; Discussion, W. H. Sanders, Frances Benedict, C. F. Patterson.

Saturday, 8:30 A. M.—Objections to Departmental Work, W. R. Snyder; Number as Ratio, John F. Haines; Defects of the Compulsory Education Law, A. H. Douglass; Semi-Annual Promotions, Noble Harter; How and What to do at Grade Meetings, Calvin Moon; Unfinished Business.

We hope all will do the work assigned them by the committee. Should anyone need further information write me. We want to make this the best meeting ever held. Write your acceptance.

W. D. KERLIN,
Chairman Executive Committee.

A BIT OF LOCAL HISTORY.

Hamilton County, Indiana, was organized as a county in 1823. The first school was taught by Sarah Finch in 1820, in a little log cabin on the

bank of White river about two miles below Noblesville. She had seven pupils. A few years ago the plans and specifications for the first public school house in Hamilton County were discovered among some old papers. We give exactly as found :

PLANS AND SPECIFICATIONS.

We the Neighborhood near and about Hair's Mill met on the 8th day January 1831 for the purpos of making arrangements concerning of a school house. on motion J. Colborn Chosen Chearman and I. Hunlock Clerk on motion of Mr. Colburn it was agr- ed that thare should be a house built 20 feet square built of good hughed logs foundation white oak 8½ ft between the floors, the Corners sawed down it is further a greed that there shall be a shingle Roof. it is further a greed that thare shall be one door in the senter of the side next to the road it is further a greed that thare shall be four windows 4 ft of length each 2 in front and 2 back it is further agreed that there be a plank floor oak or ash laid down loos loft laid with ½ inch 2 double it is further a greed that there shall be a brick Chimney fire place five feet in the back and well flored harth of brick or stone on motion Nathaniel Palmer Wm Stoops and Isaac Hurlock was chosen trustees for the term of one year or until their Succesor is qualified.

This county now has 9261 children enumerated, had an enrollment of 7959 pupils last year, had 238 common school, 22 graduates from township high schools and 49 from commissioned schools. There is a high school in every township in the county and there are three commissioned schools. There are 56 brick school houses and 52 frame school buildings. The county employs 197 teachers and has an average length of 148 days of school. Every pupil in the county has access to a library of Young People's Reading Circle books. One hundred and twenty of the county teachers attended the County Normal, during the past summer. And this is the growth of a little more than a half century.

E. A. HUTCHINS, County Superintendent.

PERSONAL.

O. E. HAGLER is the Liberty Centre man.

C. E. LESHNER directs the schools at Medora.

C. G. SHORTRIDGE is at the lead in Vallonia.

D. H. RICHARDS holds the reins at Courtland.

A. R. HUYETTE is the man to consult at Keystone.

BANFORD MERRIMAN is the best school man at Poneto.

I. C. HAMILTON has entered on his third year at Ossian.

J. C. FARIS will continue to superintend the Vernon schools.

H. W. BOWERS still holds the superintendency at Union City.

H. C. MONTGOMERY continues in charge of the Seymour schools.

J. C. DODSON is the new high school principal at Cambridge City.

A. H. BELDON is principal of the six-room school at Crothersville.

E. W. DAVIS is the name of the new superintendent at Brownstown.

WILL HACKENDORF is doing good work in the high school at Browns-town.

T. E. SANDERS is doing good work as principal of the Seymour high school.

CURTIS B. NEWSOM is the new superintendent of the North Vernon schools.

J. B. FAGAN is serving his second year as principal of the Frankton schools.

O. C. ROBINSON has returned to Cannelton to serve a second year as superintendent.

OSCAR R. BAKER has entered on his seventh year as superintendent of the Winchester schools.

MISS CAROLINE GAUTIER has been promoted to the principalship of the high school at North Vernon.

JAMES C. BLACK, formerly of this State, continues as president of the State Normal School, at Albion, Idaho.

MISS FRANCES BENEDICT, superintendent of the Worthington schools spent her summer vacation in England.

EDWARD G. BAUGHMAN continues as principal of the Mt. Vernon high school. His work is highly commended.

GEO. P. WEEDMAN, for several years superintendent at Cannelton, is now principal of the high school at Rockport.

RICHARD HARGITT, a graduate of the class of '98, Moore's Hill College, is the new superintendent of schools at Moore's Hill.

J. P. DOLAN, after being in charge of the Syracuse schools for nearly twenty years, has resigned to enter upon other business.

E. D. WALKER has entered on his second year as superintendent of the Bluffton schools, with hearty approval of all parties interested.

MISS LEVA FOSTER, for many years superintendent of the North Vernon schools, has taken the principalship of the high school at Edinburg.

W. H. FOREMAN continues as superintendent of the Petersburg schools. His manual for 1898 indicates that the schools are in good condition.

A. A. NORRIS resigned one position and declined another in order to accept the principalship of the Syracuse schools. He is a rising young man.

CHAS. E. EMMERICH continues to manage successfully the Indianapolis Industrial Training School. This school opened this year with about nine hundred-fifty pupils.

E. FISK ALLEN left the Tipton high school to accept the chair of mathematics in the Industrial Training School, Indianapolis. His successor at Tipton is F. C. Whitcomb.

COUNTY SUPERINTENDENT, LOGAN ESAREY, of Perry county, made a new departure, in taking one subject himself in his county institute. He taught history and did it well.

F. M. STALKER and C. W. Curry retire as editors of the *Inland Educator*, and Walter W. Storms, another member of the Inland Company, and its business manager, takes their place.

E. W. BOHANNON has accepted the position of "Pedagogy and Director of the Practice School," in the State Normal School at Mankato, Minn. Another excellent man to leave Indiana.

J. H. SCHOLL is superintendent of the Rushville schools, and J. F. Evans is principal. This place is not large—employs only eight teachers and yet it has a library of 2,500 volumes.

C. E. SMITH, a graduate of De Pauw, and who has his degree of A. M. from Indiana University, is the new principal of the Elkhart Normal School. Mr. Smith is held in high regard by all who know him.

R. HEBER HOLBROOK, for many years connected with the Normal School at Lebanon, Ohio, has accepted the principalship of the new high school at Pittsburg, Pa. Mr. Holbrook has many friends in Indiana.

IRWIN SHEPARD, who has for many years served as secretary of the N. E. A., has been re-elected for a term of four years at a salary of \$4,000 a year with the understanding that he gives his entire time to the work.

F. S. MORGANTHALER, with the unanimous approval of the board, is serving his fifth year as superintendent of the Rockport schools. His schools include a four-year high school course and a well equipped kindergarten.

MRS. H. C. EAMES, formerly assistant superintendent at Evansville, has gone to Aspen, Colorado, to take charge of the Primary department with pupil teachers. Mrs. Eames does not forget her old friend, the JOURNAL.

W. S. WILDMAN, of Knightstown, has been elected superintendent of the Spiceland schools to succeed G. W. Neet, resigned. Mr. Wildman had formerly been principal at Spiceland and is not a stranger. He is known to be a competent man.

G. STANLEY HALL spent two days at Madison County Institute and gave five lectures, for which he received \$300. If the lectures were each just an hour in length, Mr. Hall received \$1.00 a minute. Nothing is too good for Madison county teachers.

H. S. HIPPENSTEELE, last year of Roann, is the new principal at North Manchester. Mr. Hippensteel graduated at the State Normal in '92 and at Indiana University in '96, and has spent one year at Chicago University. He is certainly well equipped.

L. N. FOUTS, for many years superintendent of the Brownstown schools, has accepted a place in the Patent Office at Washington, where he gets "better pay for his work" than he formerly did. The JOURNAL regrets to lose Mr. and Mrs. Fouts from the educational work of the state.

STATE SUPERINTENDENT D. M. GEETING visited about forty counties during the institute season. He has traveled as faithfully as though he had been a candidate for re-election. He has now visited all the counties a second time since he has been in office. This is an unequalled record.

C. M. LAWRENCE, who has completed the junior year at Indiana University, has taken charge of the school department of the School for Feeble Minded Youth, at Fort Wayne. Mr. Lawrence is specially interested in this class of unfortunate people and has taken hold of his work with much interest.

G. L. SPILLMAN, having taken both the A. B. and A. M. degrees at the Indiana University, will again resume his duties at Central Indiana Normal as professor of Latin and German. He spent a part of his summer vacation

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at the Biological Station at Turkey Lake, teaching German. Prof. Spillman is one of Indiana's growing men.

DR. BOONE, principal of our State Normal College, has received an urgent call to the presidency of the State University of Idaho. Here's hoping he won't go. Dr. Boone is a strong man and the State Normal College never had a better or smoother year than last.—*Michigan School Moderator*. Dr. R. G. Boone is an old Indiana man.

E. B. BRYAN, associate professor of Pedagogy in Indiana University, is out on leave of absence and will remain at least one year. He is doing post-graduate work at Harvard University. Mr. Bryan did eight week's work in institutes the past summer. No other institute worker in the state is more popular with the teachers than is he. During the coming year he will deliver a course of pedagogical lectures in Brookline, Mass., for which he will receive liberal pay. His present address is 84 Wendell street, Cambridge, Mass.

BOOK TABLE.

"ANIMALS" is the name of a new monthly publication by E. I. Kellogg & Co., of New York. The copy before us Vol. 1, No. 1, September, contains life-like pictures of ten different animals, with description of them. These will serve an excellent purpose in school in various ways. Price per year \$1.50.

THE HIAWATHA PRIMER. By Florence Holbrook, principal of Forestville school, Chicago. Boston: Houghton, Mifflin & Co. This book is designed for use as the child's first book in reading. It is intended for home use as well as school use. At first sight, the impression is that the words and sentences are quite long and difficult for the first reading book, but we are told by Miss Holbrook that the lessons have been carefully graded to minimize the difficulties of the first steps in reading and that the book is the result of actual experience in her own school. It contains 139 pages of reading text, eight full-page colored illustrations, four full-page black and white illustrations, and sixty-five part page illustrations in black and white or silhouette. It is equipped with reading and writing lessons in the latest vertical script, and many special features. Bound in cloth, with specially designed cover stamp, price 40 cents.

THE SCIENCE OF ARITHMETIC. By A. Jones, Professor of Arithmetic and Psychology in the Marion Normal College, Marion, Ind. Adapted for use in Normal Schools, Academies and preparatory departments of colleges. The Inland Publishing Co., Terre Haute, Indiana. This book, as its text indicates, treats of the science of arithmetic. It forms a valuable companion

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to the regular text-book on arithmetic. As an aid to the teacher, it is of special value. Number relations, scales of notation, fundamental principles, written analysis, are a few of the many subjects which we find clearly and exhaustively treated. The definitions are carefully worded, and the solutions are models in clearness and arrangement. The purpose of the book is to help those who study it to see clearly *number relations*, and to show "that they may be clearly and logically expressed." This purpose is faithfully carried out; no short methods are used, and the author believes that the most practical arithmetic teaching is that in which a reason for every step is clearly shown.

ELEMENTS OF DESCRIPTIVE ASTRONOMY. A text-book by Herbert A. Howe, A. M., Sc.D., Professor of Astronomy in the University of Denver, and director of the Chamberlain Observatory—Author of "A study of the Sky." Cloth, 8vo, 340 pages. Profusely illustrated. Silver, Burdett & Co., New York, Boston and Chicago. This book is intended for the use of students who have a fair knowledge of elementary algebra and plane geometry, and is the outcome of several years of experience with classes of this sort. It contains carefully prepared star maps, valuable appendices, and a very comprehensive index. The exercises are a special feature. The appendices contain, along with other useful material, questions for examination, topics for essays, and short reviews of a number of valuable works on astronomy suitable for reference, and general reading. It is an exceedingly attractive work.

TODD'S NEW ASTRONOMY. By David P. Todd, M. A., Ph. D., Professor of Astronomy and Director of the Observatory, Amherst College. Cloth, 12 mo, 500 pages. Illustrated. Price, \$1.30. American Book Company, New York, Cincinnati, and Chicago. As its authorship indicates it is a work of high rank. It is at once simple, scientific, practical, and interesting. More importance is placed on the physical than on the mathematical facts of astronomy, though the results of the latter are given. Questions of universal interest such as, "Where does the day change?" "Where will the sun be overhead at noon?" "What is the difference between the sidereal and the solar day?" receive special attention. In no other similar work have we seen so many new and ingenious illustrations, explaining at a glance what pages of mere description could not make clear. Laboratory methods have been applied and every page is deeply interesting. It is especially deserving of its title, "New Astronomy," and is a model text-book.

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HOMESEKERS' EXCURSIONS.—October 4th and 18th. November 1st and 15th, December 8th and 20th, 1898. On the above dates, the C., H. & D., Railway will run Homeseekers' Excursions to Alabama, Florida, Kentucky, Louisiana, Minnesota, the Carolinas, Tennessee, Texas and many other states and territories at a rate of one regular first-class fare, plus \$2.00 for the round trip. For information call on your nearest C., H. & D., Ticket Agent.

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CLEVELAND, OHIO, PUBLIC SCHOOLS,

Office of Superintendent of Instruction.

August 30, 1897.

Gentlemen:—

Your recent note making inquiries in reference to the Natural System of Vertical Writing has been received. In response I have to say that we have used the system one year in Cleveland. It has proved a great success—even greater than any of us expected when we adopted it. We are especially pleased with the large hand of first and second books. I only regret that first, especially, is not larger. I had, before seeing these books, tested that matter of size in writing in the Indianapolis schools. Pupils should at first write large and gradually reduce to proper size. I have also, for many years, been an advocate of doing away with guide lines to a much greater extent than any publisher has been willing to exemplify until very recently. The guide lines heretofore used in systems of penmanship like the Spencerian have been a constant menace to good writing. They injure the eyesight of children, cramp the writing, and make the child believe he can write when he can only do so by being held up by the lines. He "goes wild" when these are removed.

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INDIANA SCHOOL * JOURNAL

VOL. XLIII.

NOVEMBER, 1898.

NUMBER 11.

STATE COURSE OF STUDY.

BY GEO. W. ELLIS, SUPERINTENDENT OF ELKHART COUNTY.

Napoleon, when one of his scouts pronounced the passage of the Alps impossible, said: "Impossible is an adjective for fools." Such must have been the spirit of the educational authorities of our state when they determined to prepare a course of study; and justly so, for however difficult the task, it was none the less necessary, more necessary to the rural schools of our state than to the graded schools. It would be trite for me to spend time giving the reasons for this necessity. Our school system has the advantages and disadvantages of the American system of self-government. In our own state the idea of local control is not carried quite as far as in neighboring states. The township system has, I believe, many advantages, especially when carried out as it is in our own county in the spirit of the law. But the township is so small a unit that it is still local. Such a school system needs harmonizing. The best that is found or known anywhere needs to be found and known everywhere. For this purpose the state and county superintendents have been established, but neither officer, especially the former, is ubiquitous. They must work through agents and the most indispensable agent through which they act, at least in one important direction, is the course of study. It may not be the best course for every school, indeed, better might be devised for any school. But a course is needed to guide the work, and for the average school it is an indispensable necessity and the course pre-

pared by the state is better than could be locally compiled in nine districts out of ten. I say then to the teacher: You may see faults in the course of study, you may see places where for your individuality and for the peculiarities of your school there could be much improvement, but remember, yours is not the only school and you will not always be its teacher, and for the general good you can do no better than to frankly and fully accept it and faithfully carry out its provisions, losing, however, as little as possible of your own individuality. Follow the course of study, but let it be a guide and not a master. I especially value the discussion of the subjects. In this day of multitudinous works on psychology and pedagogy it is no easy task to condense in a few pages the best and most necessary thoughts for the teacher in carrying out the work. We find here, however, suggestions of very great value and much that will help the teacher to an understanding of the spirit as well as the letter. Very properly, reading comes first. Reading is the most important study of our school, from the primary to the high school. A pupil may be a failure in arithmetic, his grammar may be below par, geography a puzzle-box, history dimmed by the twilight of the distant past, but if that pupil has learned to read, he is educated or has in his hands the weapon to become so. Why are boys and girls poor readers? Why do they never take up a book unless compelled to do so? The answer is simple. They have not learned to read. It is true, however, and the more the pity that there are some persons who *love* to read but who have never *learned* to read. They will be found often, with a book, but somehow they only scan the pages and fail to get the full content of the author, to make his thoughts their own. *They have not learned to read.* Is it the fault of their teachers? I am glad to say, not always, not altogether. Nature does much to make the reader. But we as teachers must come to the assistance of nature, must supplement the work of nature, must supply its deficiencies. To do what can be easily done, to work according to rule is the duty of the artisan; to accomplish what is difficult, to do that for which there are no rules, that is the work of the artist, of the genius. Every teacher should feel that he is there to teach the dull pupil. Any one can teach the bright pupil. If a teacher gets forty dollars a month he gets five dollars for teaching the bright pupils and thirty-five for teaching the dull ones. We do not demand of the teacher impossibilities.

We know, that do his best, there will be dull and backward readers, but we do say that the *better* the teacher the greater the efforts of the teacher, the more skillful the methods he employs the fewer will be the pupils who fail to make a success. Allow me to say here that no study is taught, as a rule, with so little art as reading. The class is called, the first pupil reads, the second reads, the class all read and then they spell, of necessity they spell, and that is all, the next lesson is assigned and the class go to their seats. The prominent idea in such a recitation is practice in reading. "Practice makes perfect;" it is not true, practice does not make perfect, practice makes imperfect; practice settles the *one who practices*, into a method, a habit, out of which it is harder and harder to arouse him as time goes on. Practice will only make perfect when coupled with an earnest effort and in the presence of advanced ideals. Better, far better the pupil did not read at all than to read without effort. Our author in discussing the subject of reading confines himself entirely to primary reading, and very properly, for no part of the work needs more attention and study on the part of the teacher than the primary. I almost fear his discussion is a little too psychological. He inclines to the phonic method of teaching reading, and unquestionably it is an excellent method, and one that will be used by every skillful teacher. Yet I am free to admit that it is difficult and is apt to fail in unskilled hands. Pardon me if I say that some of the most useless and senseless work I have ever seen done in the schoolroom has been in phonics in the primary grades. Often does it consist of a succession of grunts, which would lead one to imagine that he had found an instance of distant atavism, and a positive proof of the doctrine of evolution. And why was this? Because the teacher taught a subject as an end, not as a means. I am glad so much space is given to the important consideration of getting the thought. "Let your voice fall," may be a proper statement for the teacher to make to the class, but let me say I do not think so. It tends to artificiality, the parrot or phonograph style of instruction. Rather let the teacher say what is the thought, what is the central idea in that sentence, where is that thought complete, and the pupil, grasping the thought, will for himself discover the emphasis and inflection. The first and always the most important part of reading is the recognition of words and *that especially* is what a teacher should teach. Proper

drill in phonics is of great assistance in this matter, but the very common habit of telling, *readily* telling the pupil the unknown word or encouraging or permitting the other pupils to tell is disastrous to the best results. Test the matter; see how long the pupil remembers the word he is thus prompted in. In nine cases out of ten he will not know it sixty seconds after he has been prompted. But this is not the worst. A habit is being established. How does that pupil prepare that reading lesson? Possibly by skipping the unknown word and going on, perhaps, if that very bad habit is permitted. He raises his hand, interrupts a class and spells the word and the teacher pronounces it and he goes gaily on. He may ask a neighbor; any way he is establishing a habit of not finding out for himself. Of course here we are met with the statement that time is not sufficient. O time, time, what a multitude of pedagogical sins thou art made to cover! I can only say I appreciate what lack of time in a mixed school means, but if you have time for anything you have time to teach reading, as it must be taught, and more, it will work out its own cure. It will not be long before pupils, who are taught how to recognize unknown words, will be able to read more rapidly than if they must continually halt for prompting.

Language is apt to be a euphemism. When some opposition was around against the study of grammar in the lower grades especially, some bright genius invented a new word or rather an old one, he called it language and went on teaching grammar as before. Nine-tenths of the "language" so called, which is taught in our schools is grammar pure and simple, and this is not surprising when a good deal that finds its way into text-books on the subject is only grammar.

The outline, however, gives some valuable hints on what and how to teach language. It rather seems to me that the less text-book we have, the better. Let us teach the correct expression of thought, both formal and informal, oral and written. It is not necessary to studiously avoid grammar. Frankly and fully introduce it when there is need of it and let it be inductive, not deductive. To illustrate: Let the pupil by numerous experiments discover that when he speaks properly he says: A boy has an apple; boys have hats. He uses has for one and have for more than one. He thus discovers singular and plural and is likely to be prepared for the definition or term.

Grammar proper is supposed to begin with the sixth year—soon enough—though a pupil before that time should know much of the practical part of grammar. Grammar is the *bête noir* of the dull pupil and the terror of the teacher, yet I dare to assert that when properly taught no subject is more interesting than grammar. Book definitions and eternal analyzing are a failure and will ever be so. Not that I condemn either, but as in language, if possible, let the idea come inductively, even if you let the book go. And analyzing—it is an excellent exercise and the most efficient way to teach grammar, but it is not all, and every thing in grammar need not and should not be turned to diagraming or analyzing. Some teachers in grammar in regard to analysis and diagraming are like that doctor who always threw his patient into a fit because he knew himself to have excellent success in curing fits.

Spelling—aye ! there's the rub. A German once said that it was a good thing for the other languages of the world that the English did not know it was only their spelling that prevented their language from becoming universal. The suggestions on page 13 of the State Manual are excellent. Our author is disposed to grant that the spellers of the past were better than those of to-day. I am not ready to grant the claim. I am old enough to remember that the same claim was made thirty years ago and there is nothing to prove it was not made thirty years before that. Of course the old spelling schools turned out spelling prodigies, but we who remember them are too apt to remember only the few prodigies and forget the greater number who peacefully rested quite early in the contest. Writing is the only way to teach spelling, yet I would not for many reasons abolish the oral spelling class entirely. A teacher should always remember, it is almost or quite useless to teach the spelling of a word, of the meaning of which the pupil is ignorant, and a still more important maxim is—teach first the spelling of the words the pupil is using, whether found inside or outside the spelling book. Frequent and constant reviews, daily, weekly and monthly are indispensable.

Geography is treated at length as the importance and difficulties of the subject demand. While there is much that is valuable to the teacher on page 16 of the Manual, yet I fear the teacher may, in a scientific study like geography, carry the humanity side

too far and become unscientific. There is much to be learned of the earth for its own sake. The waves roll, the ocean currents flow, the winds blow, the tornado devastates, the earthquake destroys, the frosts come, the drought shrivels, the rain deluges, and while man takes advantage of the forces of nature where he can, yet they seem to exist with little reference to his well being and I fear the student may be too narrow in his horizon, who studies the earth only as the home of man. Still we grant that man is the chief factor in a great part of the work of teaching as well as the object of teaching geography. Geographical study should neither consist of committing to memory paragraphs or chapters of the text, learning map questions by the dozen, nor copying or memorizing printed maps. Teachers will not successfully teach the subject if lessons are assigned by the chapter, page, or by the inch. Each geographical whole to be considered by the class, whether it be a continent, state, island or sea, must be studied as a whole, as you would study an object in botany or zoology. It must be analyzed, its parts studied in their relation to the whole, to each other and to civilization. The topical method of assigning lessons is especially desirable in geographical teaching. Outlines of related topics, more or less minute, should be given the class as a guide to study, and should be used also as a guide to each pupil's recitation.

The topical method is suggested and its advantages stated. I need not repeat them, you can read for yourself. Pictures and books of travel are excellent, but do not forget to use what is within your reach and make the most of it. Go from the known to the unknown. Let the imagination work upon the known and thus create the unknown.

In teaching history aim at relief. Let there not be a dead level of facts, but let the important ones stand out in full relief in proportion to their importance. Do not teach dates, but let each pupil live in thought along the line of history, so that each event will easily drop into its proper place and grouped and measured by a few important dates easily finds its time. Shall we teach the truth of history? I answer, yes. But not on that account need we become iconoclasts, we need not take all the life and enthusiasm out of it. There have been great men, they have done great deeds, each question and each struggle has had its right and wrong. Yet I grant, it is equally true that great and good men

are found on both sides and that no man is without his faults. Our author suggests that history should not be taught as something completed. I shall also suggest that the past has not a monopoly of goodness and greatness, nor the present of baseness and selfishness, and history, when properly taught, should bring out these facts.

Let the beginner use objects, good. Yet I emphasize this caution: Test the contents of your pupils' minds and do not teach below it and do not use objects when he is able to think without them. Keep continually in mind the ends to be obtained in teaching arithmetic, and if you are an excellent arithmetician I suggest, that while I would not have you lose interest or lack energy, I would have you always remember that you must teach for the pupil and not for yourself.

I regard no other branch so ready a test of the mental caliber of the individual as mathematics, with no doubt a few exceptions. Arithmetic is for many, I might say a majority of pupils, the most difficult study and needs great skill in teaching. Clearness in instruction, concentration of the mind of the pupil upon the point in hand to the exclusion of others, for the time being, bringing vividly to his mind the interrelation of the subject and as far as possible gauging the problems he is to work, according to his mental power, are the necessities in teaching this branch. Do your best and don't be discouraged.

THE PRIVATE CONVERSATION.

BY H. C. KREBS, SUPERVISING PRINCIPAL, SOMERVILLE, NEW JERSEY.

Teacher, you can not afford to omit this vital means of success. Have you a boy who will not study? Talk privately with him. Have you another who is disobedient? He needs the private conversation. For every offence, for every dereliction, the private conversation is almost a panacea. It never does harm; it invariably does good. Many a great man has been turned from a vicious boyhood because of a heart to heart talk with his teacher. Many a teacher has removed a cause of great worry by means of a frank, private talk.

This conversation must be private. Boys and girls are exceed-

ingly sensitive about revealing their inner thoughts and lives to their companions. There is a hidden region in every heart that is closed to the public. Teachers should respect this privacy in their pupils. A conversation in the presence of other pupils, especially when school is in session and all the pupils are listening, is extremely unsatisfactory. The boy draws into himself, and the teacher, unable to penetrate his reserve, becomes irritated. But when teacher and pupil are entirely alone, reserve vanishes. If tactfully treated, the pupil will lay bare his motives. He will present his side of the case, and often the teacher will see things in a new light. Still more frequently will the pupil be shown the error of his ways; and, as a rule, he can be induced to improve them.

In the second place, note that this interview is to be a conversation. In no sense is it intended to be a lecture. The teacher is to listen, as well as talk. The great object is to lead the pupil to express his opinions and feelings, and, by entering into them, to form the cords of affection that are the result of intimacy. Too many teachers are unacquainted with everything but the mere shell of the pupil. Intimate relations, government through love and reason, are thus impossible.

Let every teacher of fifty pupils determine to know each one thoroughly. Let her have frequent private conversations with them all. Let them discuss with the utmost candor any shortcomings, troubles, difficulties. Let them also bring to her matters not related to school, so that she becomes their adviser in all the affairs of life. Let her point out to them the paths of honor, and instil an overmastering desire to be noble. In this way she may produce that indelible impression for good that is, after all, the end of our work.

Here is an illustration from real experience, in which the success of this procedure is manifest.

A teacher of sixteen years' experience came to her principal several times to complain of the irregularity of attendance of one of her twelve-year-old boys, named Jacob. He would, at times, be absent an entire week; and on his return, when at roll-call she asked him the cause of his absence, he gave vague and evasive replies. His irregularity affected his class work, and caused the teacher much irritation. Finally, she came to the principal one morning and almost demanded that this boy be suspended from

school. "He comes only half the time, and when he is here, he doesn't know his lessons. He keeps the other pupils back, and thus is a general nuisance. It would be better for all concerned if he wouldn't come at all."

"What is the cause of his poor attendance?" asked the principal.

"I don't know. I asked him this morning again, and he just said he couldn't come; he had to stay at home."

"Do you know anything about his home life?"

"No. He is dressed shabbily, but I don't know anything about his family."

"Well, send him to my office. I will have a talk with him and let you know the result," said the principal.

Along came Master Jacob a short time later.

"Good morning, Jacob. Sit down a few minutes till I finish this work," said the principal, pleasantly.

Jacob sat down and soon the principal took a chair facing him and said, "Jacob, you haven't been in school very regularly, have you?"

"No, sir; my grandmother was ill, and so I couldn't come."

"Isn't your mother at home?"

"My mother is dead,"—a tear trickled down the cheek and the boy pulled out a soiled rag that served for a handkerchief.

"Is your father living?"

"Yes, sir. He and grandma and my little sister and I all live together. My sister is six years old. My mother died when my sister was born, and I have been tending to her ever since, because grandma is eighty-seven years old, and is sick most of the time, and father goes out to work early, and doesn't come home till late, and we are too poor to hire some one to take care of my sister."

"Do you have to work hard?"

"I get up at four o'clock in the morning, dress my little sister, get the breakfast for father, give grandma her medicine and a little something to eat, wash the dishes and sweep the room. Then I chop wood till half past six and then I go for the newspapers and sell them till nine o'clock; then I come to school; but if grandma is too sick, I stay at home with her. On Saturdays I wash out a store on Main street. In this way I earn as much as three dollars a week."

"What do you do with your money?"

"My father needs it all; but he gives me everything over three dollars that I earn. I buy my own clothes and have done so for over five years."

"Do you go to Sunday-school?"

"No; I don't have any clothes fit to wear; but to-morrow I expect to have a new suit, and next Sunday I am going to Sunday-school with Eddie ——."

It is useless to detail this conversation further. Sufficient has been given to show that this boy was leading a heroic life under the most trying circumstances; that if ever a boy needed the kind word, the loving smile, and the encouraging sympathy, it was Jacob. His teacher had known nothing of this noble boy, because she had never resorted to the private conversation; because she had never questioned him, except before his schoolmates. What a crime she committed against this boy when, with all the trouble his little heart had to bear, she scolded him, and ridiculed his attempts in the presence of his companions.

On the other hand, Jacob conceived a strong regard for his principal as a result of this interchange of confidence. They were now intimate friends; and when the principal told Jacob that he was leading a heroic life, that his care of his sister and grandmother was worthy of the highest honor, and that he could be sure that God would reward him for his work; it is certain that Jacob went on his way with a lighter heart.

Teacher, you have such boys and girls in your room. Will you lighten their cares, or will you add to them by upbraiding them through ignorance of their circumstances? Surely there is sorrow enough in the outside world to justify its banishment from the school-room. Are you a beginner in the work? Then employ the private conversation in every time of difficulty. Do not punish in any instance until you have first privately penetrated to the inner life of the pupil as nearly as may be, to ascertain the mainsprings of his actions.

Avoid public reproof. Let your government be from heart to heart.—*School Journal*.

The only way to educate a human being is to set him to work for others. You can make a pedant of him, but you cannot develop him in the highest way without giving him something to do for others. Morality is thinking and seeking what you can do for others, and ethics in putting it into execution.—*Col. Parker*.

THEORY AND PRACTICE.

BY LOUIS TERMAN, A. B.

The term *practice* is generally understood, but the maltreatment to which the term *theory* has been subjected, renders necessary something of explanation for it.

Among the masses the word has long been in discredit, being applied almost exclusively to the various kinds of vain and foolish speculation. To most persons a theorist is but a crank, at best to be pitied and never deserving to be heard. His theories, which are either feared as dangerous or despised as foolish, are supposed never to pass beyond the speculative dreams of the closet.

We have nothing to do here with theory in this sense. Also in a discussion of theory and practice we must disregard the use of *theory* as synonymous with *hypothesis*. We hear mentioned the theory of rock formation, the Darwinian theory of man's descent, and the Nebular theory of the cosmos. These are not *theories*, but *hypotheses*, and should be so denominated.

Theory as distinguished from practice is a synonym for pure science. Practice is the exercise of any art, or the application of a science; while theory is the science itself, or mere knowledge. To illustrate: Agriculture as theory is made up of all the known facts that regard the constitution of soil and the growth of plants; while as practice it applies this knowledge to the production of corn, wheat and oats.

Medicine as theory is made up of the many facts that regard the human body—its diseases and their causes and cures; as practice it applies this knowledge to the amputation of limbs and the cooling of fevers. Education as theory deals with the bare facts and truths of human capabilities; while as practice it teaches literature, natural science and mathematics; it chastises, punishes and exhorts.

Every art that is practiced has underlying it certain fundamental principles according to which the practice must proceed. In this age of science we believe that the domain of law is universal, and hence that practice to be rational must be based upon theory and guided by it.

Theory and practice then are not opposite in their import, as is sometimes supposed, and those who proclaim so bitterly against

theory are only firing at their own false caricature of it. Instead of regarding theorizing as the contemplation of data aiming at general truths, they speak contemptuously of it as though it implied insufficiency of data, or impropriety of method. The word *theory* seems to arouse in their minds a picture similar to the one that Dean Swift paints of the Grand Academy of Lagads, visited by Gulliver in his travels; or else it reminds them of the Schoolmen of the Middle Ages, who wrangled so earnestly to decide whether just one or more angels could dance on the point of a needle; or perhaps it makes them think of the monks who once wrote several volumes describing very minutely the condition of heaven.

This erroneous spirit is about us everywhere. The father is ever solicitous that his son's education should be, first of all, free from every kind of new-fangled theory. He wants his son trained to meet the actual responsibilities of life, and all contact with the theoretical he heartily believes to be opposed to this result. Some merchants scorn the idea of making a systematic study of the principles that underlie their trade, and insist that their art is one to be learned entirely through its practice. Even teachers may be found who are so void of professional spirit as to scoff at educational theory.

It is to be acknowledged that in education, as elsewhere, there are too many who are ever ready to yield themselves up to vague and uncertain speculation. But these are not the ones with whom we are here concerned. They are not the ones who dig down and bring out for us the real truths according to which all education must proceed. The true educational theorist is a student of humanity. He works out a conception of the nature and aim of human life, and from this as a basis he formulates a chief aim of education, to which, in their proper relations, he subordinates all those ends which he conceives to be of minor importance. Next, he must study the mind and body in their entire natures and in all their modes of working, in order to plan the means by which the chasm, that separates him from his ideal, may be spanned. Education practiced solely as an art proceeds without guide toward an undetermined goal. The teacher who turns his back on the underlying principles of education; who has not conceived a chief good for mankind and made investigation of the steps by which that good may be attained, is but a lost wanderer in a broad Sahara.

Fortunately such persons are becoming fewer. It should also be noted that even those who persist in warring against theory are often subjects of their own deception and in fact are themselves theorists. It generally happens that the merchant who is most proud to call himself purely practical is a theorist without knowing it. He is ever planning to buy cheaper, to sell at advanced prices and in increased amounts. In doing this he studies with intense interest every problem that affects his trade; he even deserts well established paths of procedure for others which he conceives to be better. The same may be said of the practical teacher; he, too, is a theorist, basing his theories upon his own experience.

Viewed in this light the question is not so much one of choice between theory and practice, rather it is a choice between kinds of theorizing—as to whether it shall be based upon the data gathered from the observation of many and trained minds, or upon the narrow and insufficient data that our own individual experience can furnish.

The course to be pursued seems obvious. We *must* utilize the results of others' labor or else the sunlight of truth will never cast its beams upon us. While we search unaided for truth, nature on every hand insults us with thousands of particulars, and to assign to each of these its proper place in the great universe is beyond the power of any human intellect. There is a service that can be rendered only by philosophic thinkers and without their controlling voice our blunders would be sad and numerous.

Theory and practice are inseparable. Practice without theory is blind, and theory without practice is always useless and generally puerile. "It assumes without scrutiny, generalizes without truth, and explains without verification."

Two extremes then are equally to be avoided. In the first place, we must not look upon philosophic truth as belonging to another world. Its subject is the concrete facts of daily life; to these it owes its existence; for these it was framed as explanation. Nor, on the other hand, must we abide continually in the realms of theory, for if we do, the fairy forms that there inhabit will ever grow more intangible. It is inspiring to reach now and then a landscape where we may view far and wide, but the greater part of our lives is made up of the minutiae of every-day existence.

Each so fruitless alone, let us inquire what theory and practice may accomplish when properly combined. Through the individual experience of human life there bursts upon the mind a faint gleam of knowledge which is no sooner perceived than it reacts upon experience and makes it rational by controlling it. That is, truths are fabricated, the results of former experience, while the finer grade of experience thus induced will *in turn* soon bud and blossom into deeper and grander truths.

Certain facts are known as to the effects of bacterial growths upon living animal tissue and as to how these effects may be counteracted. Before the magic touch of these facts as applied in the practice of medicine, diphtheria, fevers and small-pox have lost their terrors, quarantines and boards of health have arisen, and probably the average period of human life will soon have been perceptibly extended.

Theory gives us the facts and principles that relate to electricity, and the application of these, or practice, makes us near neighbors to our antipodes, transforms the darkness of the night into the brilliancy of the noon-day sun, and every week adds wonder in varied and strange conquests over the material world.

The few simple facts upon which the workings of the lever depend could never as theory alone have proved of great value to humanity, but in their applications they have given us every machine that is known; from the rude pry pole in the hands of the savage to the delicate and complex printing press; from the quaint, old-fashioned well-sweep to the sewing machine, wheat harvester and thrasher.

No doubt it gave Galileo some degree of pleasure to contemplate the abstract principles that govern the refraction of light and the formation of images, but his enjoyment must have been inconceivably greater when he had embodied these principles in the telescope and was enabled thereby to observe distant worlds in the processes of formation and decay.

To conclude then, theory and practice are our intellectual feet, each indispensable; and just as in walking we do not attempt to carry one foot but a step in advance of the other, nor, on the other hand, lament because the right must remain at rest while the left is moved, so, of such nature must be our intellectual progress.

Greenwood, Ind.

REVELATIONS.

BY JOSIE BUNDY.

In Patmos Isle the Apostle saw in vision
Descend from heaven the New Jerusalem,
Wrought of pure gold with sure foundations garnished
With gems ne'er seen in earthly diadem,—
That blent harmoniously their heaven-born colors,
From jasper even to amethyst ; and pure
And clear, yea, crystal clear, God's glory lightened
That home where saints and angels dwell secure.

Vanished the wondrous sight ! to us an earnest
Of the fair City we may some day see
When former things are passed and God revealeth
The mysteries of His Eternity.

Oh blest Apostle, thine alone the vision
To mortal sight through ages since denied.
Yet unto us if our eyes be not holden
His revelations day by day unfold.
In prismic tints that blend on leaf and flower
We trace the Master touch of hands divine
That set harmonious the radiant colors
That once o'er Patmos, lonely isle did shine.

And as of old the wondrous tints dissolving,
From field and forest fading fast away,
Bid us with patience wait to see the mystery
Of all the years spring fresh from their decay.

North Vernon.

November woods are bare and still;
November days are clear and bright;
Each noon burns up the morning's chill;
The morning's snow is gone by night;
Each day my steps grow slow, grow light,
As through the woods I reverent creep
Watching all things lie "down to sleep."

—H. H.

PRIMARY DEPARTMENT.

*This department is conducted by Miss Anna Brochhausen, Critic Teacher
in the Indianapolis Schools.*

A THANKSGIVING THOUGHT.

Deeply rooted in the nature of man there is a strong feeling of reverence. In every age man has acknowledged a power higher than himself. Before the shrine of this deity, call it by whatever name, he brings his thank offering, his expression of love or supplication.

During the autumn months the children have been encouraged to bring nuts, seeds, leaves and flowers. Possibly the teacher has waxed branches of the most brilliantly colored leaves, and fastened them in some artistic way above the pictures on the wall. One corner of the room may have been set aside as an autumn corner, and on a corner shelf or table are found branches of golden-rod and grasses. Those who live near the country may have been fortunate enough to save a sheaf of wheat, or some may even have gone into the country for it, and also a stalk of corn complete with its full ears of grain and tasseled top. Lessons have been given on the different fruits and vegetables. The room by the first week in November presents a picture of abundance. Had a Thanksgiving day never been appointed by the government, man would, nevertheless, have had a Thanksgiving. The happy, buoyant feeling of the harvest is the soul's unexpressed Thanksgiving. Depend upon it, if the lesson of the autumn months has been successfully taught, the children are ready to express their thanks.

All the above work aimed to bring about this result and now when the thought of Thanksgiving becomes uppermost in the school work, a summary of the autumn study and a review of the gathered harvests is given. As the feeling,—“How much there is!” grows, the question, “Why does Thanksgiving come in autumn?” is asked. The thought that it is but the natural expression of the feelings after completed work presents itself and that now is the time to give thanks, is made prominent.

The mind is then made ready for the story of the pilgrims, of the first Thanksgiving, how it came to be appointed by the government and the manner of observing Thanksgiving since colonial

days. Many of these thoughts will be repeated on the day of the exercises.

In some places it has become a custom to ask the children to bring a cent or more, to help buy clothing for poor children. Fruit and vegetables are also acceptable. Where this is not customary, the teacher can devise some means to help the child give a practical expression of his thankfulness. Is there not a poor old lady somewhere near the school to whom, say a committee of three, could be sent with some little gift; or a sick child who would be pleased with a pretty basket of fruit? The basket could be trimmed with waxed autumn leaves. The child feels that in giving others pleasure he gains the richest pleasure for himself. A desire to give something to those who have little that they too may be thankful, is a natural attitude of a sincerely thankful heart. A cheerfully helpful spirit will then permeate the entire atmosphere on the day of the entertainment.

Now take a glance at the room on the day set aside for the special exercises. Much of the description was given above. Added to it, in the front part of the room (or in the hall) stands a long table covered with a white cloth. In the center stands a bouquet of autumn flowers. If none are in bloom some golden-rod will do. On either side of this (or near either end of the table) a generous yellow pumpkin (or a pumpkin and a squash) has found a place. Half way between the middle and the two ends are two fruit stands, each filled with fruits and nuts, or one with nuts and the other with fruit. Plates of potatoes, turnips, sweet potatoes and other vegetables are not forgotten. A glass of celery and a head of cabbage add their green freshness to the whole. Leaves, as if fallen from the trees, are strewn over all. On the side of the table-cover the eye is met with the words GIVE THANKS made of pressed autumn leaves.

(In arranging such a table care must be taken in the placing of colors. The cereals should also be given a place.)

Now when the children sing :

“ Thanksgiving, Thanksgiving
For blessings so bountiful, gracious and free ;
Thanksgiving, Thanksgiving,
Our Father we offer to thee,”

one feels that the meaning of the words is comprehended.

Before this Thanksgiving feeling subsides the Christmas work should be begun.

GEOGRAPHY II.

[This article is intended to give suggestions for a series of lessons rather than a report of one lesson.]

Winter is on the threshold. With him come snow, ice, frost, etc. Every one has noticed the great interest which a child takes in watching a snow storm. No doubt, each one has experienced the peculiar delight in looking up into the air when the flakes come down in hosts. Teachers all know how hard it is to hold the attention of the pupils if the first snow happens to come during school hours. Why waste this energy? The ever inquiring mind of the child longs for an answer to the questions: What is snow? From where did it come? etc. Guidance in finding the answers to these questions is of as much importance as learning to read. Grasp the opportunity. If the snow is not mixed with a misty rain, the children can be out in it for quite a little time without getting the clothes very damp. That snow which is mixed with a misty rain, which comes down in clustering flakes and melts as soon as it touches an object, is not the kind into which children should be taken. The object of the outdoor lesson is only lost and the health of the child is endangered. But there is a fine snow which affords an excellent opportunity for the study of the snow stars.

When the class has noticed the flakes falling through the air, let them put their school-room work aside. Ask them if they know the exact shape of a snow flake,—how many points it has? Tell them that if they look carefully enough at the snow flake, so that they can draw it when they return to the room, you will take them out. With this aim clearly in the minds of the children as the object of the outdoor lesson, let them put on their wraps and take them into the yard for not more than five minutes. In less time a child can observe a large number of flakes. Children without dark wraps should be given a piece of black cardboard, or a slate which has been in a cold room. A slate which has been in a warm room will not do, since the snow melts so quickly in touching it that the pupils cannot observe the beautiful forms.

When returned to the room, the class tries to make a representation of what it has seen, in drawing. After this effort, the teacher shows the pictures of some snow stars as seen under the microscope. Helps in teaching of this kind should be in the school-room ready to show the children at suitable times. While the spirit of admiration is strong, a poem or song about the snow flakes is taught. This but gives expression to the child's own feeling.

This lesson may be followed with a cutting lesson—snow stars being cut according to dictation. The children, having received the general directions for cutting snow stars in this lesson are asked in the next study time to cut a snow star, the form being their own invention. Sewing of snow stars can also form part of the hand work.

The above lessons form only the beginning of the study of moisture in the atmosphere.

If enough snow has fallen, before leaving school on the day of the above work, a child may bring a pan evenly filled with snow into the room. The next morning the children see that the pan is not so full of water as it was of snow. They see that an accumulation of melted snow is water. Recall the fact that the snow fell in flakes. As a flake melted on a garment it left a *tiny* drop of water.

T.—What then is snow? (Child says: Water or rain drops.)

T.—Water in what form?

If a child says "frozen rain-drops" the question: If a rain-drop falls to the earth as—? will bring the answer: Hail.

T.—But what is snow?

The question remains unanswered and the teacher says: Well, we will see.

T.—From where do the snow flakes seem to come? (From the clouds.) What else comes from the clouds? What then are clouds? How does the water get up into the air?

The last question may not be answered. In either case the teacher has two glasses of water evenly filled. One is placed on the warm side of the room, somewhere near the fire; the other is placed in a cool (not cold) window. They are left there until the next day.

Next lesson:

T.—What were we to learn to-day?

P.—How water gets into the air.

Both glasses are brought before the class. One is not so full as the other.

T.—Where is the water? (Gone into the air.) Flash method—evaporated.

Let the children look at the word as a whole a second, then place the parenthesis marks between the *e* and *v* and between the *r* and *a*, thus enclosing the word *vapor*. Directly beneath these two syllables of the word write the word *vapor—gone to vapor*.

T.—Which glass has the least water? Then what helps to make water evaporate? Where does the heat out of doors come from which makes the water evaporate? From where does the water come?

You say this water went into the air. If so, it must still be there. Do you see it?

Previous to the lesson a thin glass was set out into the cold air. This is now brought into the room. In a little while the children see the moisture collect on the glass.

T.—What do you see? From where did it come? (From the air.) Could you see it there before? What has helped you to see it now? (The glass.) Why? (No answer is expected.) How was the glass when it was brought into the room? (Cold.) How was the air in the room? Where did you say this moisture was before the glass was brought into the room? Why did the glass help you to see it? (Because it was cold.)

The teacher then gives the summary: The air in the room is warm and has moisture in it. The cold glass is brought into the room. What happens to the air immediately about the glass? As it cools, what does the moisture do? Which air then can hold most moisture? Give some other examples which prove that warm air contains moisture. (Lamp-chimney soon after lighting, cold pitcher of water on a summer's day etc.)

Give some other examples which prove that heat causes water to evaporate. (Clothes drying, sponges drying, plants needing watering, ground drying after a rain.)

Next day:

What did we prove yesterday about the warm air in this room? In what way did we prove this? What causes the water to evaporate out of doors? In what season of the year is the sun hottest? What becomes of the moisture which is taken up into

the air daily? (Some gathers into clouds.) What then are clouds? (Moisture in the air.) In passing through a cloud, how would the air about you feel? Sometimes the clouds are quite close to the ground, as they were last — morning. (The teacher mentions a foggy morning.) What do we then say about the air? What is fog? How then would the air feel if we passed through a cloud above us? In what form is the moisture in the air which we call clouds? On a foggy morning the air about us is full of —? Then in what form is the moisture in the clouds?

What caused the moisture in this room to settle? What will cause the clouds to fall? What falls from the clouds? If the air is very cold through which the rain passes, it comes to earth as —? What is hail? What is rain?

We now know what hail and rain are. We have not yet decided what causes the moisture to sometimes fall as snow. Our to-morrow's lesson will help us answer this question.

[TO BE CONTINUED.]

LEND A HAND.

(This department is conducted by Mrs. E. E. Olcott.)

*"Look up and not down,
Look forward and not back,
Look out and not in;
Lend a hand."*

A MEMORY GEM.

In the bright springtime, to an old apple tree
Came a fair little blossom; it whispered to me :
"Dainty and fair and rosy am I,
An apple I'll be some day, by and by."

I watched it and loved it, the bees loved it, too,
It was full of sweet honey, the answer came true :
"Dainty and fair and rosy am I,
An apple I'll be some day, by and by."

One day a strong wind blew the petals away,
A round little body seemed strangely to say :
"Green as the grass and hard am I,
An apple I'll be some day, by and by."

The summer sun kissed it and turned its cheeks red,
A ripe, juicy apple soon hung there instead
Of the fair, dainty blossom, and green, little ball,
A round juicy apple, so welcome to all.

Selected.

This is a good memory gem for Thanksgiving month, because sound, rosy apples are a gift to be thankful for.

For busy work, give the children scissors and paper and let them, free hand, cut out apples, large and small. Then, with water colors or colored pencils they can make the small apples "green as grass," and the large ones "rosy," with red cheeks. Encourage them to cut out trees and color them. The ambitious may even attempt cutting apple blossoms.

TALKS WITH INEXPERIENCED TEACHERS.

LANGUAGE WORK.

My Dear Young Friends:

The earliest work in language with beginners is so closely allied to lessons in reading that there is virtually no difference between them. The child's stating an original sentence as, "This month is November," may be called language work. The teacher writes the statement on the blackboard (the pupil not being advanced enough to do so) and calls on some one to "tell what the chalk has said," and then it may be called a reading exercise.

The teacher tells a story, follows it up with a conversation lesson, leads the pupils to re-tell what they have heard, and lastly has them read their reproduction. Such work might be called either a language or a reading lesson. Why trouble to draw a line between them? Language work and reading should be coupled in thought as hook-and-eye, and cup-and-saucer.

Because of this close relationship, this talk on language might have been entitled: A Phase of Reading.

A primary teacher who believes in combining the sentence and word methods, used as her first reading lesson a set of sentences about a flower which a pupil had brought. One of the sentences was:

"It is a red flower."

During the first week she began to direct attention to the separate words in the sentences. She had some one read about the red flower, and then asked how many could tell of other things that were red. As each sentence was given she wrote it on the board, impressing upon the child that he must remember his own sentence.

The result was a dozen or more statements similar to these:

"My hair ribbon is red."

"Jesse's waist is red."

"I have a red ring."

"This is a red pencil."

When the list was complete the teacher asked:

"Who told the story about a hair ribbon?" adding as a hand was raised, "come and read your story, Lora."

The little girl took the pointer and moving it lightly along the whole length of the first sentence, turned and told her story to the school.

"Who had the story about the waist?" came next. "Yes, it was yours, Robert; you may stand by me and tell whether or not some one else reads it correctly. Who can read Robert's story?"

Arthur swept the pointer along the second sentence, read it, and then he and Robert both took their seats.

When all of the sentences had been read the teacher said:

"Every story tells about a color, what is that color?"

Upon receiving the answer she wrote the word red, with red chalk, conspicuously upon the board. Then they had a hunting game, finding all the "reds" in the stories. When the lesson closed every child in the class of thirty had taken part. The exercise might have been called a word drill or a reading lesson, but it was excellent language work, too, and from that standpoint let us look at it.

The pupils expressed thoughts in complete sentences and were interested in their statements. It was borne in upon them, vaguely, but surely, that those strange symbols on the board really told the stories, just as the spoken words did. Later they would be ready to tell a story in writing, i. e. write a sentence or series of them, without feeling that there was anything strange or difficult about it.

November, or Thanksgiving month, is especially rich in material for such language-reading exercises.

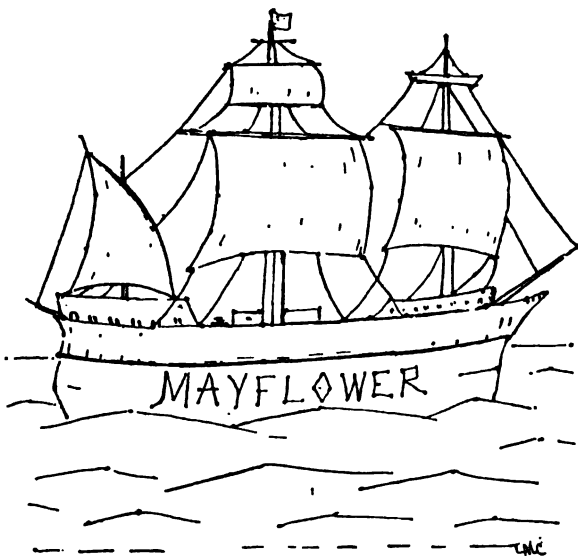
Let the pupils name things we should be thankful for ; write the list and have it read. Have a lesson about *pumpkins*, humble but golden. Pumpkin and mince are Thanksgiving pies ; the Jack-o'-lantern may afford innocent merriment.

Tell stories of the Puritans, and have reproduction lessons from them.

In picturing their life in New England, tell of " Miles Standish, the Puritan Captain," whose weapons were a " cutlass and corselet of steel, and a trusty sword of Damascus," a " fowling piece, musket and matchlock," while on the roof of the Plymouth Church he had " a brazen howitzer planted."

Picture Miles Standish looking sadly from the window and saying :

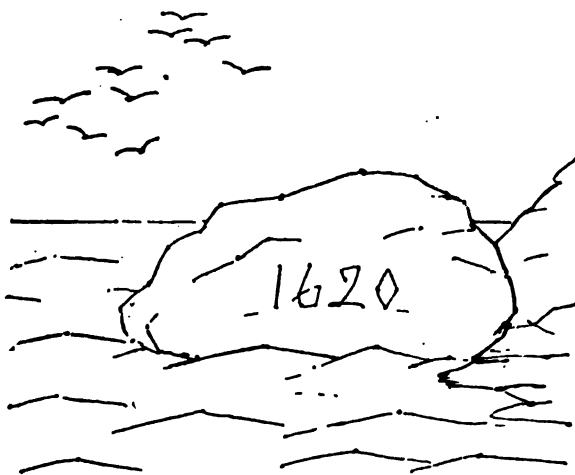
" Yonder, there on the hill by the sea, lies buried Rose Standish,
Beautiful rose of love, that bloomed for me by the wayside.
She was the first to die of all who came in the Mayflower ;
Green above her is growing the field of wheat we have sown
there,
Better to hide from the Indian scouts the graves of our people,
Lest they should count them and see how many already have
perished !"



Tell how he was suddenly called to join a council at the church, and found there an Indian "stern and defiant." On the table beside the Bible lay a rattlesnake's skin filled with arrows. The other Puritans could not decide upon a reply, but Miles Standish exclaimed :

" 'Leave this matter to me, for to me by right it pertaineth.'
Then from the rattlesnake's skin, with sudden contemptuous
gesture
Jerking the Indian arrows, he filled it with powder and bullets,
Full to the very jaws, and handed it back to the savage,
Saying in thundering tones: 'Here, take it! This is your
answer!'"

Such stirring scenes kindle an interest in history.



Plymouth Rock. T.M.C.

Let them illustrate their stories with drawings of the Mayflower, Plymouth Rocks and the cabins of the Puritans.

Emphasize the thought side, laying as little stress as possible upon the new words. There is a rightful and important place for word drill, but it should not intrude everywhere.

The many new words which must of necessity be brought in, have served their purpose when they have helped to tell the stories, and may be laid aside for a year, perhaps, till they are needed again.

Is some one asking: "What grade are those suggestions for?"

I answer, for all grades. Miles Standish can go to the first grade as well as Hiawatha. Language-reading exercises are as good for the eighth grade as for the first, only in the former they might be called essay-literature lessons. The thought is for all, *adapting* the subject to the particular grade and special class must be left to the teacher. [The above cuts are from *Primary Teacher*.]

GRANDPA'S PUMPKIN STORY.

"Please tell me a story, Grandpa, a long one."

"You tell one first."

"Well—

Peter, Peter, pumpkin eater,
Had a wife and could not keep her,
He put her in a pumpkin shell
And there he kept her very well.

Now it's your turn."

"Once upon a time I found a very, very big pumpkin seed. I planted it in a very nice place in a very rich field. The seed sent up a very thrifty vine and on it I noticed one very fine pumpkin. That pumpkin grew, and grew, and grew. It was larger than any pumpkin I ever heard of, except Peter, pumpkin eater's.

I planned to haul it to the house and cut it up with an ax, Grandma said she would stew it and make it into Thanksgiving pies, one for every little child in the Orphans' Home.

Just before Thanksgiving I could not find the old black sow and her six white pigs, anywhere. I hunted the farm over. When I went to the field of pumpkins I thought I heard her grunting. I called and called and was sure I heard the little pigs squeal. I followed the sound, and what do you think! I found them all inside of that monster pumpkin. The mother had eaten a hole

in one side and they had gone in. They liked it so much that I suppose they decided to live there till they ate their house up. They spoiled my plan. I had to let the pigs eat that pumpkin instead of sending it to the orphans, made up into Thanksgiving pies.

Now you ought to be satisfied for I have told you a *big* story, if it is not a long one."

Children who know anything about the relative size of pigs and pumpkins will not need to be told that grandpa's story was a "big," not a *true* one. But city-bred little folks, who are not so wise in nature's lore, may need the explanation that grandpa's pumpkin was just a *mate* to Peter, pumpkin eater's.

THE BOBOLINK.

I am very glad to learn through A. R. Hardesty, in October Journal, that I was mistaken about the bobolink and that many Hoosier children have full opportunity to make the acquaintance of Robert of Lincoln. Perhaps others will lend a hand, as A. R. Hardesty has done, and tell us how far south in the State the bobolink may be *easily found*.

Olive Thorn Miller says the nest is very hard to discover. We should be glad to hear from the readers who have found a bobolink's nest. Tell us about the eggs and the young birds. Does the bobolink appear early or late in the spring? What time in the autumn does he fly away? In New England the bobolink seems to invite acquaintance, he impresses himself upon the casual observer. He has a place in the hearts of the people as the mockingbird has in the affection of the southerner.

Is the bobolink a familiar friend in northern Indiana? Does he merrily, mockingly *sing* at the children as they go to school along the country roads?

Whittier says of Maud Muller :

"Her merry glee
The mockbird echoes from every tree."

When I used to read that I wondered how a *mocking bird* could be singing in the trees of New England. I was told long afterward that because of the saucy, mocking tone in its song, the bobolink is often called the mockingbird.

Who will send us some quotations about the bobolink from Hoosier authors?

DESK WORK.

Frequently teachers say: "There are so many helps for the primary grades and so few for any others." Therefore I feel that I may be rendering a service by mentioning a little paper which is just for *Senior Grades of Public Schools*; it is called *The Schoolroom* and is published by The Schoolroom Publishing Co., Buffalo, N. Y. In even small clubs the yearly subscription is 25 cents for the teachers' and 10 cents for the pupils' edition.

The mission of the Lend a Hand Department is to be of service to earnest, busy teachers, so no other explanation is offered for adding publishers and prices when mentioning methods, devices, school aids, and books which are on the market.

The following are taken from the September number of *The Schoolroom*:

I.

Write abbreviations for—

| | | |
|--------------------|-----------------------|------------|
| Postmaster | general | colonel |
| captain | sergeant | postscript |
| dollar | barrel | barrels |
| bushel | quart | gallon |
| peck | degree | foot |
| minute | account | example. |
| pound (weight) | pound (money) | |
| lieutenant-colonel | the square root of 16 | |

II.

Write in full the words for which the following abbreviations stand:

| | | |
|------------|-------------|---------------|
| Sr. | Jr. | Mr. |
| Dr. | Cr. | MSS. |
| e. g. | D. V. | 10th prox. |
| Xmas | C. E. | P. O. order |
| 14th inst. | Y. M. C. A. | Sandwich Ids. |
| Mt. Hood | 12th ult. | C. Fear. |

III.

1. Contract the following to a telegraphic despatch of not

more than ten words : " I will be home on the late train this evening. I find it impossible to see your brother. Meet me at depot."

2. Mr. and Mrs. John Smith live in Detroit. Their home in that city is called " Willow Dale." They wish to have Mr. and Mrs. William Johnson spend an evening with them. Write a formal note of invitation, dating it May 2d. The invitation is for May 10th, 6 P. M.

IV.

EVERY-DAY SCIENCE.

We want the pupils to think out the answers for themselves. If there should be any questions " too hard," just ask your teacher to help you out. Teachers should give pupils one question each day to be taken home for discussion. Interest will thus be aroused in the home.

1. With a fire in the room at what level is the air the warmest, and why?

2. Why does it take longer to boil an egg on a mountain than in the valley below?

3. Why does an oilcloth feel colder than a woolen carpet in the same room?

4. Why does snow protect the grass?

The answers to the science questions are given in the teachers' edition in order that when it seems best, the pupils may compare their answers with the written ones.

ANSWERS.

1. Air is warmest at the top of the room. The warm air is lighter than the cold air and is pushed up by the latter.

2. The air on a high mountain does not press so hard as the air in the valley below, so the water will boil and give off steam before it is as hot as it would require to be in the valley. The boiling water is therefore not so hot on the mountain top as it is in the valley, and, therefore, the egg will not cook so quickly.

3. An oilcloth is a better conductor of heat than a woolen carpet, and if it comes in contact with the skin conducts heat away from it faster than a woolen carpet would.

4. Snow protects the grass because the air enclosed between the flakes is a non-conductor.

PROGRAM FOR THANKSGIVING DAY.

Suggestions:—In addition to evergreens and red berries tastefully arranged over doors and windows, make use of small shocks of wheat, ears of corn, baskets of fruit, and pumpkins for decoration. Borrow pictures of the Mayflower, Priscilla, the landing of the Pilgrims if possible and have them on exhibition. If your community is such that an offering is practicable, have each pupil bring some useful article, fruit or clothing, to be distributed to some one less favored than himself. If near a large town or city, the contributions may be sent to some charitable institution. Have as many children as possible take part in these exercises.

1. SONG..... Air—America

The God of Harvest praise ;
In loud thanksgiving raise
Hand, heart and voice ;
The valleys laugh and sing,
Forests and mountains ring,
The plains their tribute bring,
The streams rejoice.

Yea, bless His holy name,
And joyful thanks proclaim
Through all the earth ;
To glory in your lot
Is comely, but be not
God's benefits forgot
Amid your mirth.

2. READING..... By the Teacher

THE PRESIDENT'S PROCLAMATION.

3. RECITATION..... A Boy's Opinion

Oh, Valentine Day is well enough,
And Fourth of July is jolly,
And Christmas time is beautiful,
With its gifts and wreaths of holly.

New Year's calling is rather nice
And Hallowe'en sports are funny,
And a May-day party isn't bad,
When the weather is warm and sunny.

Oh, all of them are well enough ;
But the day that is best worth living
Is when we all go to grandmamma's
To a splendid, big Thanksgiving.

—Emma C. Dowd.

4. RECITATION..... Why Thanksgiving Comes in the Fall

"I'll tell you about it, my darling, for grandma explained it all,
So that I understand why, Thanksgiving always comes late in the fall,
When the nuts and the apples are gathered, and the work in the field is
done,
And the fields, all reaped and silent, are asleep in the autumn sun.

It is then that we praise Our Father who sends the rain and the dew,
Whose wonderful loving kindness is every morning new ;
Unless we'd be heathen, Dolly, or worse, we must sing and pray,
And think about good things, Dolly, when we keep Thanksgiving Day.

But I like it very much better when from church we all go home,
And the married brothers and sisters, and troops of cousins come,
And we're ever so long at the table, and dance and shout and play,
In the merry evening, Dolly, that ends Thanksgiving Day."

—Margaret E. Sangster.

5. READING—A Boy Our First National Thanksgiving

It is 1777, and at Valley Forge ; bleak hills are on one side, a frozen river on the other ; deep snow is upon the ground, and piercing winds sweep through the valley, moaning and sighing around the little huts which are the only shelter of the American army. Shivering sentinels stand on duty here and there, and occasionally a half-naked, half-starved soldier is seen ; a year ago Washington had an army of 45,000 men ; to-day less than 20,000 is all he has at his command. Something less than 12,000 of these are huddled together at Valley Forge, which is within a day's march of the enemy's headquarters. More than a thousand of our brave American soldiers have not a shoe to cover their feet, and in their march their naked feet left bloody tracks upon the ice ; provisions had failed and famine had been in the camp ; it would seem as if all this terrible state of affairs would leave the poor struggling nation little to be thankful for. Yet Congress ordered Thursday, December 18, 1777, a national Thanksgiving Day, for on October 16th General Burgoyne had surrendered his entire army to General Gates, and to the more hopeful ones there seemed some chance that the young nation, now about eighteen months old, might possibly live to conquer its oppressors.

6. RECITATION The Tramp's Thanksgiving

The night before Thanksgiving Day
A tramp lay dreaming in the hay
Of home before he ran away
To be a hungry sinner ;
In dreams with youth and beauty crowned,
He with the dear ones gathered round
The noble turkey stuffed and brown,
To eat Thanksgiving dinner.

Again he bowed his youthful head
With reverence while his father said
The blessing—saw the table spread—
With dainties made by mother ;
He saw her famous pumpkin pies,
He smelled the turkey's savor rise
And hoped to get its wish-bone prize
To pull with baby brother.

His little hand helped pass each plate
 Of turkey meat in slices great,
 And O how hard his turn to wait—
 How slow seemed father's carving ;
 At last his plate came heaping high ;
 He seized it with a joyous cry,
 And—woke to find his dream a lie,
 Except that he was starving.

In tears he crawled from out the hay,
 And to the farmhouse picked his way—
 There in the open oven lay
 A turkey cooked and steaming ;
 He softly knocked—no one replied ;
 He ventured in—no one he spied ;
 He smelled the turkey—"O," he sighed,
 "I hope I'm not a dreaming."

He wasn't. With a motion slick
 He grabbed the turkey, shoved it quick
 Beneath his coat—then felt a kick
 That told him he was living.
 And when the farmer let him go
 He realized in all its woe
 That home alone can e'er bestow
 To man a true Thanksgiving.

Thanksgiving-day sentiments. Let each pupil arise in his seat and recite without being called upon :

7. "Thanksgiving is just giving thanks," said Grace;
 "And having a thankful heart," said Ned;
 Little Pearl looked up with a troubled face;
 "I fought it was turkey and pudding," she said.
 —*Selected.*
8. "Harvest is come. The bins are full,
 The barns are running o'er;
 Both grains and fruits we've garnered in
 Till we've no space for more.
 We've worked and toiled through heat and cold
 To plant, to sow, to reap;
 And now for all this bounteous store
 Let us Thanksgiving keep."
9. We meet to-day
 To thank thee for the era done,
 And trust thee for the opening one.—*Whittier.*

10. "So welcome, thou Thanksgiving Day!
Roll all our selfish thoughts away,
And make us loving, kind and true,
Christ's love our guide in all we do."
11. He who thanks but with the lips
Thanks but in part;
The full, the true Thanksgiving
Comes from the heart.—*J. A. Shedd.*
12. The still, small voice of gratitude.—*Gray.*
13. Stand up, on this Thanksgiving Day, stand upon your feet. Believe in man. Soberly and with clear eyes, believe in your own time and place. There is not, and there never has been a better time, or a better place to live in.—*Phillips Brooks.*
14. "Do not wait for a special day in which to be thankful. He who waits for Thanksgiving Day to be thankful will not be thankful when it comes.
15. "After all, the best Thanksgiving is thanks living."
16. Thank God for friends your life has known,
For every dear departed day;
The blessed past is safe alone,
God gives but does not take away;
He only safely keeps above
For us the treasures that we love.—*Phoebe Cary.*
17. For the blessing of earth, and of air and of sky,
That fall on us all from the Father on high,
For the crown of all blessings since blessings begun,
For the gift, "the unspeakable gift of thy Son,"
We praise Thee, gracious God.—*S. E. Adams.*
18. Some have meat that canna eat,
And some would eat that want it,
But we hae meat and we can eat,
Sae let the Lord be thankit.—*Robt. Burns.*
19. The way is long and rough that leads
Through upturned sod, and scattered seeds,
And careful toil and tendance wise,
'Neath falling dews, and burning skies,
And early heats and rainfalls late,
To where the golden harvests wait.
20. CONCERT EXERCISE.....Whole School
For flowers that bloom about our feet;
For tender grass so fresh and sweet;
For song of bird and hum of bee;
For all things fair we hear or see,
Father in heaven we thank thee!—*Emerson.*

[For additional material for program, see November JOURNALS of previous years.]

EDITORIAL.

For blue of stream and blue of sky ;
For pleasant shade of branches high ;
For fragrant air and cooling breeze ;
For beauty of the blooming trees,
Father in heaven we thank thee !—*Emerson.*

Do NOT fail to give your old address as well as the new, in asking to have the address of the JOURNAL changed.

ERRATA.—In the October JOURNAL, in the last paragraph of Mr. Millis's article on "Social Elements" please read "obliteration" where is printed "obligation."

DON'T FORGET. Many teachers subscribed for the JOURNAL, during institute season, with the understanding that they would pay for it Thanksgiving week. DON'T FORGET.

THE STATE ASSOCIATION will convene at Indianapolis, December 27th. The program will be given in full in the December JOURNAL. In the meantime do not fail to make your plans to be present.

THE NORTHERN INDIANA NORMAL sent two hundred students to the army and yet opened with eighty-three more students this year than last. What other school furnished two full companies for the war?

ESPECIAL attention is called to the article found on another page by Geo. W. Ellis, superintendent of Elkhart county, on the state course of study and the comments and suggestions accompanying it. The article will well repay the reading.

THE JOURNAL has received many letters highly commending the work of Superintendent Millis and Professor Brown on the two reading circle books. After teachers have read the notes and comments on the history work found among the township outlines by N. C. Hieronimus, of Richmond, other letters of praise will doubtless be received.

THE CURFEW LAW. The JOURNAL is glad to note that a great many Indiana cities and towns have enacted curfew ordinances whereby children under 16 years of age are forbidden to be on the streets after eight o'clock or nine o'clock at night unless accompanied by parents or guardians. This is a most righteous regulation and is doing much where enforced to keep boys and girls from "going to the bad."

LAFAYETTE DAY.

There is a national movement on foot to have the school children of this country raise money with which to erect a monument in Paris in honor of General LaFayette. The Governor endorsed the movement and issued a proclamation naming October 19 as the day on which to hold appropriate exercises in the schools, and take up the collection.

The Governor did not consult the State Superintendent, and had forgotten that October 28 had already been designated as Arbor and Bird Day. Superintendent Geeting rightly decided that it would not be wise to try to have two public days in the schools in two successive weeks, so he sent out a circular letter to city and county superintendents, recommending that a part of October 28 be given to LaFayette, and that the collection be taken on that day and forwarded to his office at Indianapolis.

THE JOURNAL wishes to add that it would be well for every school to observe this day and take up this collection; and if it has not yet been done, owing to the lateness of the notice, there is time yet. Another day will do as well. As this is a national movement, Indiana should take a respectable stand with other states.

A FOOLISH RULE.

The Terre Haute School Board has a rule in regard to the selection of teachers which begins:

"All things being equal the trustees will continue the practice of former years of electing only one member from a family to teach in any of the departments of the schools at a time."

Then follows a half-page of twaddle in which they reserve to themselves the right to put in two teachers from the same family in case of an emergency. This rule is based on the idea that the schools are eleemosynary institutions and that school money must be divided so as to satisfy as many different families as possible.

It is the plain duty of this board and of every board to put into the schools the most efficient teachers that their money will buy, and if two of these teachers happen to belong to the same family, what of it? Furthermore this rule and its explanation indicates that the board lacks "backbone" and has formulated a "general rule" in order to help them deal with a specific case.

A board that believe that the *welfare of the children* should be the determining element in the selection of teachers and that have the courage of their convictions, will need no such rule.

THE STATE BOARD QUESTION.

MUNCIE, IND., October 20, 1898.

Editor Indiana School Journal:

DEAR SIR:—I have read, in the last number of the JOURNAL, the article under the the caption of "College Question" including the circular letter prepared by President Butler. I have no desire to reply to that circular in

defense of the State Board of Education of Indiana, but it suggests topics concerning the work of the State Board of Education with which it is possible that your readers are not acquainted.

Having been connected with the public school work of Indiana, practically since the organization of the public school system, and having been a member of the State Board of Education of Indiana for eight years, my opportunities for observing the growth of the Indiana system and the work of the State Board of Education have been reasonably good.

As early as 1867, efforts were made by the principals of high schools and academies, through the State Board of Education and the Superintendent of Public Instruction, to have the colleges of the State fix the admission to the Freshman class in the several colleges of the State so that Greek might not be required; while the high schools and academies proposed to do more than the equivalent of the two years in Greek, by additional work in Mathematics, Latin and Science.

At the State Teachers' Association held at New Albany in 1868-9 the program had been arranged for a meeting of College Professors, Principals of High Schools and Academies for the purpose of fixing some basis upon which pupils who graduated from High Schools and Academies could be admitted to the several colleges and receive credit for the work which they had done. I was then principal of Orleans Academy and was very anxious that an understanding should be reached, because I wished to encourage my pupils to complete a college course in some of our colleges. At the meeting referred to, I was appointed one of the committee representing the academies, which in conjunction with similar committees from the high schools and colleges were to formulate some basis for entrance to the Freshman class. That joint committee failed—utterly failed—for the reason that we could not furnish the two years of Greek, then demanded by the colleges. The State Board of Education had brought about the above meeting and during the terms of office of Superintendents Hobbs, Hopkins, Smart, Bloss, and Holcomb, efforts were continued by the State Board of Education to induce the several colleges of Indiana to so modify their courses of instruction that graduates of high schools could be admitted to the Freshman class.

In 1873 the Board of Trustees of Indiana University agreed to adopt the minimum course which had been prepared by the State Board of Education for entrance to the Freshman class. This course had been endorsed by the leading high schools of the State. The State Board bound itself to examine the schools applying for commissions, and, I believe, faithfully carried out its part of the work, at least, there was no complaint that pupils from commissioned high schools had reached the Indiana University unprepared. The enthusiasm given to high school work throughout the State was remarkable, and every good school in the State was made the better. Indiana University which, in 1873, was but a college, with comparatively few students, was made better. The graduates of the high schools of the State began to enter there, because their diplomas admitted them to the Freshman class without examination, and the attendance has risen from 150 to over a 1000. In 1882 the State Normal School admitted the graduates of commissioned high schools on conditions which enabled the student to complete

the course in two years. That it was benefited by the act is shown in its growth.

Every college in the State had this opportunity and I am certain that it was the wish of the Board of Education that each college and university in the State should avail itself of the opportunity of connecting itself with the public schools of the State.

The so-called non-state colleges made their mistake in their refusal to co-operate with the public school men in bridging the chasm between the high schools and the colleges.

The Presidents of the State institutions in all the years past were earnest workers for the advancement of the educational work of the State. In my experience they never attempted to control the State Board of Education. They were always a minority of the Board, and could not then and cannot now, control it. I do not see why they ought to be removed from the Board. The Board now is neither political nor sectarian. It would be exceedingly unfortunate to make it a political board. It is not probable that men of broader culture and better equipped for their duties would be secured by any method of appointment.

JOHN M. BLOSS.

BOOK EVALUATIONS.

CONDUCTED BY CHARITY DYER.

[NOTE.—This department is not a library bulletin, but a teacher's exchange through which the experience of one will reach a number of others.]

(Communications addressed to 1122 Broadway, Indianapolis.)

THE SWANS OF LIR—II.

(CONCLUDED.)

Lir bore his bride to Finneha. As the royal pair entered the castle Finola and her brothers ran to meet their father. For a moment the new queen's face darkened, then, as if repenting her anger, she clasped the children in her arms and praised their beauty, while Lir and his people looked on with delight. As time passed, those who watched the queen closely, perceived that she seemed to feel for the children a strange mixture of love and hate. While at times she showed them all the tenderness of a mother, she frowned whenever Lir caressed them. The doting father grew fonder of his children day by day. At night he placed their little cots by his bedside. At dawn he left his couch and stood by their bed, often bending over them and kissed them as they lay asleep.

"And if they slept not, from their balmy nest
With under-sliding arms he raised them high,
And clasped them each, successive to his breast,
Or on them flashed the first light from the sky."

The capricious love of their stepmother now gave place to hate. For weeks she sat sullen and silent in her room. One morning she surprised her

husband by ordering her chariot. She was going to visit her father, she said, and she requested the king to allow his four children to go with her. Lir gladly consented, but when the wicked queen reached Lough Darvra, she descended from the chariot and went with the children into a thicket. There she drew a dagger, but she could not strike the children.

"The mood was changed. She smiled that smile which none
How wise soe'er beholding could resist,
And drew these children to her one by one ;
Then wailed once more, and last their foreheads kissed,
And cried with finger pointing to the lake—
'Hence ! and in that clear bath your pastime take.'"

When the four children went into the water, the cruel queen took a wand of the Druids and touched each golden head with it. In a moment four snow-white swans floated on the waves instead of the beautiful children. The eyes of the birds, full of grief and yearning, were fixed on the wretched queen, as Finola spoke :

"Bad deed, afflicting babes that harmed thee not ;
Bad deed, and to thyself an evil dower ;
Disastrous more than ours shall be thy lot !
Thou, too, shalt feel the weight of Druid power ;
From age to age thy penance ne'er shall cease ;
Our doom, though long it lasts, shall end in peace."

That night Lir's sleep was disturbed by frightful dreams. Impatient to see his children again, he drove toward the arch-king's palace. When he reached Lake Darvra he stopped, for four snow-white swans rose from the lake to greet him. They told their wrongs, and the wretched father knelt on the sands and implored his children to return to him. But they answered that never again would they leave the waters until the Tailkenn came to bring them freedom. To comfort her father Finola added :

"Albeit our days are sad
The twilight brings our pain in part relief
And songs are ours by night that make us glad ;
Yea, each that hears our music though he grieve
Rejoices more. Abide, for it is eve."

All night Lir and his train remained by the side of the lake. All but the king were soon sleeping, lulled by melodious song. In the morning the anguish of the unhappy father returned as he hastened to King Bove's palace. There he denounced the queen as a murderess and—

"Straight on the king Druidic insight fell,
And, mirrored in his mind as cloud on lake,
His daughter's crime, distinct and visible,
Before him stood. He turned to her and spake :
'Thou hear'st the charge. How makest thou reply ?'
And she : 'The deed is mine. I wrought it ! I !'"

Bove then asked his daughter what shape she dreaded most. "A demon of the air," answered the unhappy queen. "Then, into that shape shalt

thou be changed," said the stern king, touching her head with his Druid wand. Shrieking, she fled, a Fury, doomed to wander over earth till the end of time.

The two kings with their hosts rode northwaad to Darvra. They encamped by the shore, charmed by the melody of the swans. The sons of Mile, from the far off parts of the land, came to listen to the enchanting music. For thirty years the swans continued to delight the multitude, and men forgot their enmities while listening to their song. The aged king Bove died, lulled by the music. Lir's death followed soon after. One night Finola told her brothers that their pleasant days on the lake were ended. The three brothers wept, for they dreaded the stormy waves of the Sea of Moyle, where they were doomed to pass three centuries.

III.

Flying upward, the swans sailed lightly on the air until they reached the Sea of Moyle. A law was proclaimed through the island punishing with death any one who would kill a swan. Here they suffered from frost and from the salt water which pierced their bleeding wounds. Finola, the "mother-hearted child," comforted her brothers when they floated toward her, frozen and wounded. Aodh was placed beneath her right wing, Fiacre beneath her left, while Conn nestled among the feathers on her breast. Many dreary nights and days were spent by the swans on the Sea of Moyle, but when the centuries during which they were to stay in Moyle had passed, they soared on the air and flew toward the western coast of Erin. Here they lived for many winters; here they met a bard who gave them the love for which they had yearned. The night after the minstrel had seen them, was the worst they ever had known. Finola tried to comfort her frozen brothers:

"Beneath my right wing Aodh make thy rest!

Beneath my left, Fiacre! My little Conn,

Find thou a warmer shelter 'neath my breast,

As thou art wont; thou art my little son."

In vain she strove to comfort them. Louder and louder grew their wailings. Their sister said at last—

"Have faith in God, since God can ne'er deceive!"

And lo! Those weepers answered—"We believe!"

The God in whom they believed comforted them. Never more did they struggle with frost or storm. When their stay in the western seas was at an end they returned to Finneha. Alas! The spot where Lir's towers had formerly stood was marked by a heap of stones. Ruins and silence! Then for the first time Finola gave way to despairing grief. They left the spot. For a long time they rested on the Lake of the Birds. The time of their probation was to end with the pealing of the Tailkenn's bell. One night a sound sweeter than their own song floated over the waters. Again, and yet again it pealed forth. A strange feeling of rapture filled the swans. As the mist lifted they saw on the shore an altar. Before it stood the Tailkenn, and behind him knelt a great multitude. "Children of Lir," said the Tailkenn, as he saw the swans sailing to the shore, "return to your native land.

Your sufferings are over." "When we tread on our native land we die," said Finola. "Thou must baptize us, priest, while we live." Knowing that death was near, Finola then gave directions for their burial—

"Upon my left, Fiacre; upon my right
 Let Aodh sleep; for such their place of rest,
 Secured to each by usage day and night;
 And lay my little Conn upon my breast;
 Then on a low sand pillow raise my head,
 That I may see his face though I be dead."

As she spoke she stepped on the sands, followed by her two brothers. Immediately the swans' plumage disappeared, and the children of Lir regained human form, but with it the weight of the weary years. Old and helpless they crawled toward the altar. As they lay before it, the Tailkenn baptized them. Lo! Before the eyes of of the throng a new wonder. The shapeless, time-worn bodies vanished and four children rested on the sands.

"Finola lay, once more an eight years' child;
 Upon her right hand Aodh took his rest,
 Upon her left Fiacre;—in death she smiled,
 Her little Conn was cradled on her breast."

At the base of the altar, close to their father's tomb, the children slept.

A LANGUAGE EXERCISE.

Reconstruct the following sentences so as to make them express what their authors meant to say :

Store sign : Don't go elsewhere to get robbed—step right in here,

We regret to find that the announcement of the death of Mr. W. was a malicious fabrication.

He could not commit suicide to save his life.

I could see that the floor had been swept with half an eye.

Erected to the memory of John Phillips, accidentally shot as a mark of affection by his brother.

The board of education has resolved to erect a building large enough to accommodate five hundred students three stories high.

We have two schoolrooms sufficiently large to accommodate three hundred pupils above another.

Mr. ——— has removed corns from several of the crowned heads of Europe.

Ireland's cup of misery has been overflowing for ages and is not yet full.

He leaves a brilliant future behind him.

To rent, a house containing ten rooms, located in a pleasant village which has a fine bay window in front.—*Teachers' Institute.*

MINNESOTA has a state inspector for high schools who makes reports to a State High School Board. The Third Annual Report, which is on our table indicates that a great work is being done for the high schools of the state and that it pays to have this kind of inspection and supervision.

TOWNSHIP INSTITUTE OUTLINES.

FOURTH INSTITUTE.

SOCIAL ELEMENTS.

CHAPTER IX.

Social progress depends upon the economic condition of the masses. In proportion as a people are prosperous, live in good houses, wear good clothes, have sufficient wholesome food, leisure and the means of pursuing cultural activities and of entering into the higher social relationships, they will rise to higher things. Thus social progress must begin with economic betterment. Life is more than meat and drink, but one must have meat and drink before one can rise to the higher phase of life. The so-called wealthy class is in satisfactory condition ; it does not need our attention. The problem then relates to the less well-to-do. The real social problem then is how to insure to the producing or operative classes a larger share of this world's goods ; how to give them more and better food, better houses, more pleasant work, opportunities for accepting the higher forms of culture and enjoyment offered them. That society is approaching this consummation was shown in the preceding chapter. To show some of the means by which our economic betterment is being effected is the purpose of the present chapter. To fully appreciate this volume the reader must remember that its central thought is co-operative organization. This explains why the chapter under discussion is devoted almost exclusively to the Trades Union. The labor union is the most tangible form which the movement toward economic progress has taken. The social movement is not the product of professional reform. Rather it is an irresistible movement of the whole people, largely unconscious, without definite plan or method, and actuated by a somewhat blind impulse working toward universal well-being. The movement is necessarily tentative ; many theories must be advanced and tried ; many mistakes must be made ; there is no other way. The individual must approach these theories without bias ; he must be willing to try all things and cleave unto that which reason and experience prove to be good. The social movement affects every body, and none can afford to be prejudiced or indifferent to any theory which proposes to benefit a particular class or society as a whole. It is with such sympathetic mental attitude that the reader ought to approach the author's argument in favor of the labor union.

The average reader of these pages has been taught to look upon the labor union with more or less open hostility. This is because we are essentially an agricultural people and the labor union is an outgrowth of conditions incident to manufacturing industries. Labor organizes because it must struggle for existence. The farming community has never felt this need of organization, for the acquisition of farm lands has been so easy in this country that the better class of farm-hands have constantly gone into business on their own account. Thus there has never been in this country real competition among the farm laborers for employment. And it is competition for remunerative employment plus the desire for better living, that

forces factory workmen into organization. The American press has been misled by the same inexperience, so that the labor union has been largely misrepresented to the people. Dr. Henderson's statement of the labor situation is certainly fair and explicit. An epitome of his thought will be the best discussion possible.

I. Objects for which labor unions strive :

1. An established rate of wages below which workmen shall not be paid. The reason for this is that a minimum scale of wages will rid the better workmen of the competition of incompetent and less skilled persons, because the employer can not afford to pay unskilled labor good wages. At the same same time the skilled workman is remunerated for his superior skill. Thus he is given a substantial inducement to improve.

2. A shorter working-day, whereby the laborer may have time for rest and for mental and social improvement. The arguments that apply to the demand for a short school day hold in this connection. The cause is precisely the same.

3. Such improved buildings, machinery, and other conditions as will secure the lives and health of the operatives.

4. Security from the tragic losses occasioned by the introduction of new machinery. These losses occur in two ways ; from immediate displacement by the introduction of labor-saving machinery and from the later contraction of demand for labor because his product is many times multiplied by the new machine. The laborer wants continuous employment, not a share in the larger profits of the concern.

II. Methods of the labor union :

1. Insurance benefits ; members pay dues which go to help support the individual who is out of employment because of contraction of business or because he is acting in obedience to plans of the union.

2. Collective bargaining for employment ; the workman being thus assisted by the co-operation of his fellows in securing employment on the best terms.

3. Strikes, in which by refusal to work under the objectionable conditions the employer is the more readily brought to terms. A strike is simply co-operation in doing what the individual reserves the right always to do, to quit employment when his interests demand it.

4. Legislation ; mitigating their condition by securing favorable regulation of industry by government.

III. Objections to unionism :

1. Violence. It is charged that since labor unions instigate strikes they are responsible for all violence committed in connection with them. In response to this it is urged that while the violence is to be condemned it is an incident in the youth of American unionism and by no means an essential feature.

2. In those lines of manufacturing in which the concern had a monopoly of that line of business the higher wage which the union secures would be added to the selling price and thus would be paid by the consumer. But certainly outside of these few lines competition would keep prices down and for the union to demand more than a reasonable wage would be suicidal to its members.

3. A third objection is that in raising the rate of wages to the highest point reasonable the large army of inferior workmen would be forced out of employment and added to the large "poor" class. This is quite true, yet the tendency would be to elevate the inferior workman. This objection is quite fully met in the next chapter.

4. There is quite general criticism of the "walking delegate," with much justice in view of his past character, and yet the labor organizer is all right in principle. There is as much ground for the "manager" of labor as of capital. Labor needs the specialist versed in economics and skilful in the management of men. The real need is to rid the "walking delegate" of his charlatanry.

Four schemes have been suggested for relieving the strain existing between the employing class and the labor class: Arbitration, conciliation, profit sharing, and co-operative enterprise. Arbitration is in great public favor, yet in the author's judgment it is practically a "splitting of the difference" and not a decision of the merits of the case, and for this reason objectionable when principle is involved. Profit sharing means that after all expenses of the business are paid, salaries, wages, interest, insurance, etc., the remaining profits shall be shared by employer and employes on some equitable basis. This plan has never succeeded, and beside is viewed with suspicion by both employers and labor leaders. It must be remembered that all that labor wants is a reasonable wage with assurance of regular employment. It has also been suggested that the workmen pool their small capitals in a company organization and control the business entirely. This plan is subject to the objection that it would be practically impossible to secure a sufficient capital in this manner to do more than a petty business and that the risks of production are too great to be undertaken in this way. Successful co-operation must involve specialization. The plan of conciliation is preferable because it purposes to bring disagreeing parties together in a friendly attitude and lead them to see the real merits of the case, but the entire matter is in the experimental stage and all theories and plans of amelioration must be given thorough trial.

The question of fraternal insurance is as yet not clear, but the history of all organizations for this purpose so far has not been entirely favorable. The scheme is certainly under a cloud.

Particular attention should be given to the explanation of and argument for consumers' leagues. There is an opportunity here for all to do some very practical reformation.

This chapter is one of the most valuable in the book. It will well repay careful study. Its contents may be presented to pupils in the history class with great success. Indeed the subject is necessary to a right understanding of the affairs of this country during the last half century.

CHAPTER X.

By social misery is meant the want of sufficient food, clothing, and housing, and the absence of what we may call the "sunshine of life." The causes of social suffering may be distributed under the following heads:

- (1) Unsocial character of the rich as seen in fraudulent valuation of property

for taxation, harsh treatment of employes, and ostentatious living; (2) Unsocial character of the vagrant and criminal classes; (3) Mental and physical defects; (4) Ignorance; (5) Wasteful habits of living among the poor. The study of this chapter ought to be supplemented by investigation along the following lines:

I. The "Residuum." Take a census of the persons in your neighborhood who have no or at most irregular employment. Find—

1. How many are so on account of physical inability?
2. How many on account of mental defect?
3. How many because of ignorance?
4. How many because of intemperance?
5. How many from voluntary vagrancy?

It will be in point to find how much of physical inability is due to poor and poorly cooked food, to bad housekeeping, and to irregular habits.

II. Indiana's Humane and Reform System—

a. The county poor farm—the number of inmates, causes of their pauperism; have they or have they had relatives in the poor house? The management of the institution; do the inmates work, is the institution self-supporting?

b. Orphan asylums—number of inmates, and the management.

c. Assistance of the poor by the township trustee.

1. Who and how many are helped?
2. In what manner is this help given, and how much?
3. Are the persons helped related?
4. How many years have they been assisted? Do they attempt to help themselves? Do they receive aid from any other source?

d. The Indiana Blind Institute—how supported, the course of study, on what terms inmates are admitted.

e. Indiana School for Mutes—its organization, service, etc.

f. Insane asylums—number and location; number of inmates, how supported, how managed.

g. The Indiana State Board of Charities—its duties, organization and methods of work.

h. Indiana's reform schools, State prisons and reformatories—number, location, number of inmates, management and the laws relating to the punishment of crime. Send for the annual reports of all these institutions, or make inquiries of their superintendents. No course in history is complete which does not comprise the history of our great State; and her provision for her criminal, dependent and defective classes is no small part of her glory. But after all it is quite clear that character is the great desideratum; that education, mental, moral and physical, is the only sure means of relieving society of its incubus of crime, vagrancy and inefficiency. Herein is a large part of the social function of the teacher.

PLATO'S REPUBLIC.

In the last article we accompanied Socrates and his friends in their further search after a satisfactory conception of justice. This search led us to the consideration of the Platonic doctrine concerning the nature, origin,

growth and ideally perfect form of the State, the perfect form being that in which justice prevails. Justice in the State we found to consist in "every one doing his own work." The State as a whole is but the institutional expression of the nature of the individual and justice in the State is to be secured only through the previous embodiment of justice in the persons of those who are the rulers of the State. Education makes or mars the man, it leads to or away from the attainment of justice in individual life, hence its importance as a means to the desired end, first in the individual and then in the State. In the present paper we shall consider Plato's thought concerning the nature and process of education.

In Plato's mind education is essentially growth, the culture and development of inherent powers. The philosopher is "like a plant which having proper nurture, grows and matures into all virtue." Education involves the cultivation of both body and mind,—of the body first that it may become the efficient and obedient servant of the mind. Plato's scheme of elementary education as given in *The Laws* (see *Studies in Plato's Republic*, page 38) shows that he had great regard for proper physical training. He seems to have anticipated the modern interest in the physical side of the child's nature. To a certain extent at any rate he was a believer in child-study. The same warrant existed in his time that exists now for a careful consideration of the child's physical nature, viz.; its bearing upon the higher life.

But education is growth in mind as well as in body. The mature faculties of the mind are not mere external additions to the native powers of the child but they are the organic outgrowth of those powers when properly trained and developed. Native ability counts but it is not the only determining factor.

Growth and the mature product depend not alone upon the original element, the seed as it were, but upon food and exercise. A plant "if sowed and planted in an alien soil becomes the most noxious of all weeds, unless saved by some divine help." In the question of food for the mind Plato is concerned about three things. First, he would not present that which the child's lack of development makes it impossible for him to assimilate. "Education must begin with their plays," but material suitable to the age must be chosen. Second, he would carefully guard the growing spirit from impure or unwholesome food. "We would not have our guardians grow up amid images of moral deformity, as in some noxious pasture, and there browse and feed upon many a baneful herb and flower day by day, little by little, until they silently gather a festering mass of corruption in their soul." Third, he would exercise the greatest care that the growing mind should be provided with nourishment that is pure and healthful.

But exercise as well as food is necessary for normal, vigorous growth and Plato would give to childhood and youth an opportunity to develop in play and guarded practice the virtues inspired by the ideals set before them. Body and mind should be trained to the *habit* of virtuous action even before the reason is able to perceive the wisdom of such a course. In this principle we find pedagogy as sound as it is simple. It will claim our further attention at a future time.

Education means growth. Growth requires a vital germ power, whole-

some food and healthful exercise. It also requires sufficient time for these elements to unite and develop into the finished product. For Plato there was no short cut to learning, refinement, culture and power. Education was a serious business and it was the work of a lifetime. At the age of thirty a bright youth was ready to *begin* the study of philosophy. At thirty-five he might receive his first appointment to a command in the State, with the privilege of serving till he was fifty. Thirty-five years of preparation for fifteen years of service! It may be that modern views of education and of cultured manhood might well be influenced by this notion of the old philosopher.

In connection with this conception of the nature of education as essentially a process of growth it is interesting to consider the subject of the degeneration of the State and of the individual as discussed in books VIII and IX. The State degenerates when its rulers degenerate. States are not "made of 'rock and oak' but 'out of the human natures that are in them and which turn the scale and draw other things after them.'" And human nature degenerates when lower ideals are permitted to take possession of the mind. These lower ideals may be induced by the lower nature of the individual, by the solicitations of friends or relatives or by public sentiment. But from whatever cause present they are sure to manifest themselves in conduct. "The more they think of this [trade] the less they think of virtue;" for when riches and virtue are placed together in the scales of the balance the one always rises as the other falls." In this entire discussion Plato seems to be using, consciously or unconsciously, one of the fundamental principles of modern psychology. Professor James calls it the principle of "motor consciousness." Simply stated it is that every idea that enters the mind modifies the entire nervous system and tends to manifest itself in conduct. If the principle be true, Plato's contention for purity of thought and ideals among children and youth is a just one and it is a pedagogical fact of tremendous significance. Education implies growth but there may be growth downwards as well as upwards, the direction being determined by the ideals that live in the mind. It may be true, it certainly is true to a great extent, that a man makes his ideals, but it is equally true that his ideals make a man what he is. And so also with society.

To recapitulate. Education is essentially a process of organic growth, and development in both body and mind. 2. Growth depends upon the original nature, exercise and food, the latter being considered both as to what should be withheld and what should be given. 3. Growth requires time. 4. Men make the State; but ideas and ideals make the men.

Earlham College, Oct. 1898.

J. F. BROWN.

SCHOOL MANAGEMENT.

Through ignorance or wilfulness, the unity of the school may be broken. It must then be restored. Correction or restoration of broken unity, would, perhaps be a better title for the present discussion than school punishment; since punishment carries with it the idea of inflicting pain. But we are so accustomed to think of the matter under the name of punishment that it can be easiest approached from that point.

When rightly interpreted, that is a good statement which says: "*Punishment must be of the nature of the offense and proportioned to it.*" This has, however, been most viciously applied. Suppose a boy played truant a quarter of a day, then, by the nature of the offense, it was thought he should remain in after school to make up lost time. And to make it mathematically proportionate, he should remain in just the length of time lost. The girl whispers and thus annoys the teacher; it is but just that she be equally annoyed by the teacher. * * * * * This idea of the law above stated must be put aside as a dangerous one. The thought of getting even with the offender must never guide the teacher. Retribution must have no place in punishment. It is external means applied to the external side of the offense. It can never reach the offense; but always aggravates it.

Let it not be forgotten that punishment, or correction, is, for the purpose of restoring unity; and that the above law is a statement of the means to that end. The trouble in applying the law is that we have not noted carefully the nature of an offense. The offense is in the will, the choice of the pupil; and not in his external deed. In itself it is not wrong to stay out of school. If the pupil has the measles it is even right to remain out. Whispering in itself is not wrong. It is only when the pupil, by such means consents to break the unity of the school that this act is an offense. The offense is in the intention. His deed is in his mind. A wrong act, or an offense, is a choice against the spiritual unity of the school.

Let this distinction be clearly impressed, for a failure to distinguish between the pupil's outer deed and his inner spirit is the fruitful source of bad management. The pupil must purpose, must will, in harmony with the end of the school of which he is a part, and the pupil who breaks the spiritual unity of the school by choosing against it, must reverse that choice before he has cancelled his offense. This makes his punishment of the nature of the offense, and proportioned to it; for he simply undoes the act and thereby restores himself to the institution.

The teacher must at all times conduct himself as if it were the pupil's business to correct his own deed, and not as if it were the teacher's business to adjust the case for him. If a boy in the high school plays truant the question is *not* what the teacher is going to do about it, but what is the boy going to do about it. Pupils sent from the grades to the superintendent for correction suppose that he is going to do something with them to square the account. In such cases the superintendent should be passive, only witnessing what disposition they make of their own deeds. He should aid, of course, by whatever suggestions and direction he may find helpful, but the pupil must feel that he alone can make right his own wrong. The pupil to correct his deed must see its relation to the school and then must decide to act in harmony with the school.

Many of the serious difficulties of management arise from the bearing and words of the teacher, which proclaim that he is *boss* of the institution and has the power in his right arm to quell any riot that may occur. This attitude will always break the fundamental unity—the unity between teacher and pupils. The two parties being formed, each strives with the other for the mastery; and from the larger number and the industrious

ingenuity on the part of the pupils, it is no wonder that the teacher is often out-generaled. If it is a personal fight, why not? If the teacher would keep his personality out of the question, and aid the pupil to interpret and apply the law to which both must render obedience, the pupil could not but admire the dignity and firm justice of the system and esteem the teacher who so patiently and emphatically aids him to see the ground of the law and to render obedience thereto. There is no reason why a teacher who has common sense and sympathy, and who proceeds in a business like way in correcting the evil-doer, should drive the pupil from him.

Such a procedure would correct the false sense of honor among pupils of which we hear so much. A pupil will generally screen his fellow and baffle the teacher in pursuit of an evil-doer. I find that teachers generally consider this honorable conduct on the part of the pupil; and as things are, I suppose it is. When the teacher sets his personality against the school, who blames the pupil for staying by his friend as against another person? The teacher has inculcated the thought that the school is his school; and the pupils properly think, "Let him take care of it; we shall not help him to manage us." If the pupils felt that it was their school and that the teacher is simply to help them to make it beautiful and good the sentiment of honor would change from the feeling of honorable conduct towards a comrade as against a teacher, to that of honorable conduct towards the school, which is for the good of all his comrades.

The immediate purpose of school management is to secure the unity between teacher and pupil essential to instruction. But school management has an end co-ordinate with that of instruction, the ethical end of character. When a child enters school his actions are chiefly controlled by caprice. In school for the first time, perhaps, he is held to systematic effort to attain some good beyond his immediate desires. By the nature of the school organization he is compelled to limit himself to a given task at a given time and place; and thus learns obligation to the great law of punctuality, and forms habits of obedience thereto. Thus, too, he learns the lesson of industry. No phase of school work is more beautiful or more suggestive of educative power than a schoolroom of children brought into the unity of an industrious effort to attain some worthy object. The very nature of the school requires self-limitation on the part of each pupil; and no form of training could be more directly in the line of moral habit and moral power. All forms of combination in school work help to enthrone the reason and will above desire and caprice—help to exalt the spiritual man above the natural man.

ARNOLD TOMPKINS.

HISTORY.

The first topic in the outline,—the review of the work of the first five grades,—may well be left for general discussion, involving as it does a summary of the actual work of the teachers in the school-room and last year's work on the subject of history in the township institutes. The limits of the present article forbids more than the briefest mention of the facts covered by the other topics of the outline. In *Myers' General History*, or, better,

Myers' Mediaeval and Modern History, will be found much helpful material. Chapters IV, VIII, XII, XIII, and the last parts of chapters X and XI, of *Guizot's History of Civilization* will also be found to bear directly on these topics.

Feudalism was a transition from the confusion and chaos of the dark ages to the civilization of medieval and modern times. That it was the best system practicable at the time is easily proved by the argument of "the survival of the fittest;" it prevailed throughout western Europe, and its advent everywhere marked a distinct advance in the security of life and property. It not only extended over all Western Europe, but it included almost the whole life of the people; industry, church, political life, society,—all were feudalized. As a system it included the ideas of service and homage from an inferior in return for protection from his superior. An ideal feudal state would be as follows: The king received the whole country over which he ruled as a charge from God. Since he could not personally maintain order in all parts of his kingdom, he divided it into several parts, giving each part into the charge of one of his great nobles, who was to maintain law and order and could claim obedience from the people of his district. These nobles would probably find it to their advantage to subdivide their holdings on similar terms, and so on till we come to estates small enough to be managed by one man and his serfs. When the king needed money or an army, he called upon his great nobles, they on their inferiors, and so on down the line. Practically this perfect harmony of arrangement was never realized.

Feudalism may be said to have begun in the ninth century, although it is easy to discover traces of it several centuries earlier. It was strongest during the eleventh, twelfth and thirteenth centuries, after which it was in a state of decay, disappearing in the fifteenth century. Several things contributed to this fall, but all may be summed up in the fact that it had served its time; society had advanced beyond the feudal stage and feudal forms became unendurable bonds. The crusades weakened the nobles both numerically and financially, the free cities and the common people came to see that their best chance for advancement lay in an alliance with the kings, and the latter were only too glad to cripple the power of the nobles, long beyond their control. Under feudalism the common people could not be said to have a life of their own, social, industrial, political, or otherwise, but we must not forget that it afforded them secure subservience when there seemed no chance for their safety standing alone.

Attempts to establish feudalism in America, as in case of the "seigniories" of New France, the "patroons" of New Netherlands, and the "grand model" of Locke, all failed because it was a system at variance with the conditions amidst which it was sought to establish it. The English settlers refused to submit to a vassalage which their forefathers had outgrown two centuries earlier, and when the vigorous Anglo-American institutions came into conflict with the mediaeval systems of the Hudson and St. Lawrence valleys, the latter were swept aside like houses of straw.

The Crusades have been mentioned as one of the causes of the downfall of feudalism, but they also had far wider effects than this. They stimulated the learning of western Europe in a marked degree. Crusaders came in

contact with the intellectual life of the east and brought back with them stimuli to study in new lines; travel and observation had their usual effect of freeing the mind from narrow and intolerant views. An Italian historian says that the knowledge of geography acquired by the pilgrims to the Holy Land did more to quicken intellect than any other knowledge acquired by the scholars of Europe during the middle ages.

Their effect on the business world was no less marked. Various arts and manufactures were introduced from the east, commerce sprang up to meet the demand thus created, western ingenuity was spurred on to produce articles superior to those imported, and a new era dawned for the industries of western Europe.

Contact with Mohammedan people compelled intolerant Christians to confess that theirs was not the only religion for which men would fight and if need be, die; reflection and comparison did their usual work, expanding thought burst old forms and a new religious life blossomed forth in the reformation.

One political effect, the downfall of feudalism, has already been touched on. The death of nobles and the loss of their estates was balanced by the rising power of the merchant class of free cities; these loaned money to kings and nobles and took care to secure increased political influence in return. The hand of the Turk was stayed and the fall of Constantinople delayed till the countries of central Europe were strong enough to set bounds to the western advance of Mohammedan power.

The term "Renaissance" is used with such different meanings that it sometimes leads to confusion. Some apply it to the renewed interest in classical learning which sprang up in Italy during the fourteenth and fifteenth centuries; others use it with reference to the whole forward movement of intellectual life which began with the Crusades and ended by giving place to the greater movement of the reformation. It is in this latter sense that the term is most often used.

One of the most striking features of the Renaissance was the renewed interest of scholars in the learning and literature of Greece and Rome; it was this which gave the movement its name, which means "re-birth." After the fall of Rome and under the rule of the church these literatures were considered unworthy of study because pervaded by pagan ideas; the scholars of the Renaissance period revived the study of these, holding them to be the best models of style and also to contain much that was valuable in the progress of human thought. A modern historian says: "The old civilization contained treasures of permanent value which the world could not spare, which the world will never be able or willing to spare." The result of this study was that, in the words of M. Guizot, "Greek and Roman antiquity was restored to Europe."

This great movement was helped by the invention, in 1438, of the art of printing from movable types; in fact but for this there could have been no such general advance. When we remember that prior to this invention books were produced only by the laborious method of hand copying, we can more fully appreciate the force of Mr. Greene's words when he says, "In the last thirty years of the fifteenth century, 10,000 editions of books and

pamphlets are said to have been published throughout Europe, the most important half of them, of course, in Italy; and all the Latin authors were accessible to every student before it closed."

England's development has been unique among the nations of Europe; her isolated position has enabled her people to avoid the worst effects of some of the ills that afflicted the continental nations, and to maintain a far steadier movement toward free government. At the conquest of England in the eleventh century by the Normans the people of that island held more personal privileges and influence in their government than was true in the neighboring countries of the mainland. William the Conqueror and his successors were more or less inclined to trample on these rights, but the abuses at last became so great that in the time of King John all classes of society united to wrest from this ruler the lost privileges. They compelled him, 1215, to grant the famous document known as "*Magna Charta*" or the "Great Charter." This paper was made up of sixty-three articles, but the most important were probably those securing to the people the right of trial by jury, and limiting the power of taxation to the Common Council of the realm.

It is very significant that the charter did not speak of *new rights*, but claimed to reaffirm *old rights*. Taswell Langmead says that it "professed to assert rights and liberties which were already old." The same author asserts that it was not meant for the barons alone, but for the common people as well; he says, "At least one-third of its provisions relate to promises and guarantees on behalf of the people in general, as contra-distinguished from the baronage." How precious this document was to the people and how much influence they had in the government may be seen from the fact that it was confirmed nearly thirty times between the thirteenth and sixteenth centuries.

The "Common Council" referred to in *Magna Charta* had not yet become the modern English Parliament; it consisted of but one house and was made up of the nobility and the clergy. Under Henry III (1216-1272) another forward movement was made. Becoming impatient at his continued mismanagement the people rose again and, the king having been defeated, his brother-in-law, Simon de Montfort, was placed at the head of the government. He called together the Common Council, but in addition to the nobles and the clergy he called for two representatives from each county and city; thus creating (1265) the House of Commons.

Parliament, now composed of two houses, was at first very cautious; it meddled but little with affairs of government except to guard personal rights. The Tudor sovereigns (1485-1603) are usually characterized as grasping for more power than had been possessed by previous kings; but they sought power by legal *forms* at least; they made Parliament their tool with which to work. Parliament was subservient and ceased to protect individual rights as carefully as before, but it more than balanced this by securing a share in the general affairs of government; for having been consulted as a matter of form it soon claimed a right to a voice in the affairs of state.

Thus, when England began the colonization of the New World, her people were secured in certain private rights,—for these were by no means

lost sight of under the Tudors,—and had a direct share in shaping the policy of the general government. In France and Spain, on the other hand, the people had neither. Many factors would have to be taken into account in attempting to explain this difference,—the isolated position of England which protected it from the worst effects of feudalism, England's remoteness and consequent greater freedom from the formalities of Roman law and the Roman church, the difference in the character and traditions of the peoples, and so on through a long list.

The great movement toward freedom in religious life which lasted from the beginning of the sixteenth to the middle of the seventeenth century (1520-1648), is known in history as the "*Reformation*." To judge of the aim of an historic movement we must turn to its results; we must see what seemed to satisfy the impulse urging it on. Viewing it in this light we are forced to conclude that the reformation sought more than a reform of the abuses in the administration of the Catholic church; only with the attainment of liberty of thought can it be said to have accomplished its aim. In the words of M. Guizot it was "a sudden effort made by the human mind to achieve its liberty, a great insurrection of the human intelligence."

The reformation succeeded only in the nations of Teutonic stock—England, Germany, Denmark, etc.; in the Romance nations—France, Spain, Italy,—it can scarcely be said to have made a beginning, and was easily suppressed. This can be accounted for only on the theory that the Teutonic nations alone were ready for such an advance. It is another illustration of the Biblical truth, "To him that hath shall be given;" the nations which had preserved some degree of liberty, and whose people had inherited traditions of personal freedom, were ready to carry this movement to a successful termination.

The last topic in the outline calls for a review of those already discussed, and we add the following summary:

The world seemed just awakening to modern life when America was discovered. The fall of feudalism had made possible the establishment of really national governments; the Revival of Learning, or Renaissance, had widened the intellectual horizon; commerce had brought distant peoples into contact, thus stimulating activity both intellectual and industrial everywhere; gunpowder had helped destroy feudalism and had begun the destruction of social rank by making the common man the equal in combat of the mounted knight; printing and the invention of paper had spread the means of knowledge; the compass guided the venturesome seaman beyond the sight of land; stirring thought was on the eye of rebellion against abuses in the church; every sphere of human activity,—intellectual, industrial, social, political and religious,—felt the impulse of new life. The English people, by their fortunate escape from the worst effects of feudalism, by their unrivaled position for participation in the world's commerce, by their freer form of government, and by their greater distance from Roman formalism in church and state, were far better prepared to seize on these new activities and make them a part of themselves than were the people of either France or Spain.

N. C. HERRONIMUS.

SOLUTIONS REQUESTED, ETC.

[Indiana Complete Arithmetic, Page 251, Ex. 6.]

When exchange on New York was $1\frac{1}{2}\%$ discount, an Indianapolis merchant paid \$352.62 for a draft on New York, payable 30 days after sight. What was the face of the draft? (Interest 6%.)

Solution: 100% less $1\frac{1}{2}\%$ discount = $98\frac{1}{2}\%$. As this is a time draft, this cost of a dollar draft must undergo another decrease or discount. The interest (bank discount) of \$1 at 6% for 33 days is \$.0065; \$.985 — \$.0065 = \$.9795, what \$1 draft cost. The question now is how many dollars draft cost \$352.62? Of course as many as the number of times \$.9795 is contained in \$352.62, or 360 times; hence \$360.

(Ex. 48, p. 284, *Ind. Arith.*) A, B, C, and D agree to do a piece of work for \$152. A, B, and C can do it in five days; B, C, and D, in $3\frac{1}{2}$ days; C, D, and A, in 4 days; D, A, and B in $4\frac{1}{2}$ days; how long will it take them all to do it? If they work together how much should each receive?

Solution: In one day A, B, and C, can do $\frac{1}{5}$ of it; B, C, and D, $\frac{2}{7}$; C, D, and A, $\frac{1}{4}$; and D, A, and B, $\frac{2}{9}$; adding, 3 A, 3 B, 3 C, and three D would, in one day, do $\frac{11}{12}$ of it; and A, B, C, and D would do $\frac{1}{12}$ of it. Hence, it would take all $\frac{11}{12} + \frac{1}{12} = 1\frac{1}{12}$ (days) to do it.

$\frac{11}{12} - \frac{1}{12}$ (A, B, C,) = $\frac{10}{12}$, one day's work for D; then D can do it in $1\frac{1}{10}$ d.
 $\frac{11}{12} - \frac{2}{9}$ (B, C, D,) = $\frac{1}{6}$, one day's work for A; then A can do it in 6 d.
 $\frac{11}{12} - \frac{1}{4}$ (C, D, A,) = $\frac{2}{3}$, one day's work for B; then B can do it in $1\frac{1}{2}$ d.
 $\frac{11}{12} - \frac{2}{9}$ (D, A, B,) = $\frac{1}{6}$, one day's work for C; then C can do it in 6 d.
 $\frac{1}{6} + \frac{1}{6} + \frac{1}{6} + \frac{1}{6} = \frac{2}{3}$; $\frac{2}{3}$ of \$152 = \$56, D's share; $\frac{1}{6}$ of \$152 = \$24, A's share; $\frac{1}{6}$ of \$152 = \$24, B's share; $\frac{1}{6}$ of \$152 = \$24, C's share.

(NOTE.—The other problem requested is solved in the book; the writer may have asked for the wrong one.)

Query 64. Explain why we invert the divisor in dividing one fraction by another.

The "why" of inverting the divisor is found in the analysis of the problem. To illustrate: Divide $\frac{2}{3}$ by $\frac{1}{11}$.

Let us see now if the analysis doesn't make the 11 a multiplier, and the 5 a divisor.

(a) $\frac{2}{3}$ divided by $\frac{1}{11}$ will give $\frac{2}{3}$ as much as $\frac{2}{3}$ divided by 1 (as we enlarge the divisor, so we decrease the quotient).

(b) $\frac{2}{3}$ divided by $\frac{1}{11}$ will give 11 times as much as $\frac{2}{3}$ divided by 1 (as we decrease the divisor, so we enlarge the quotient).

(c) $\frac{2}{3} + 1 = \frac{5}{3}$; any quantity divided by 1 gives the same quantity for a quotient.

(d) $\frac{2}{3} + \frac{1}{11} = 11$ times $\frac{2}{3} = \frac{22}{3}$. (See b).

(e) $\frac{2}{3} + \frac{1}{11} = \frac{1}{3} + \frac{1}{11} = \frac{14}{33} = \frac{1}{11}$. (See a).

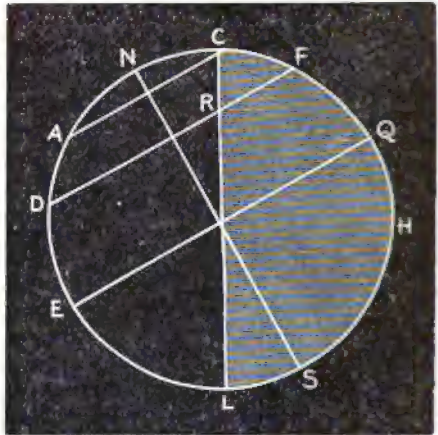
Therefore, as the analysis required the 11 to become a numerator, or multiplier, and the 5 to become a denominator, or divisor, we simply, in practice evolve the rule, "Invert the divisor, and multiply."

Query 65. Explain how it is that the sun, in our latitude, in summer,

shines on the north side of a house in the morning and in the evening, but not at noon. (An Inquirer, Roachdale, Ind.)

The figure represents the position of the earth about June 21st.

Let N and S be the poles, EQ the equator, AC the arctic circle, and D a point on the earth in 40° north latitude. CDL is the day half and CHL the night half, of the earth. Let W represent an unseen part of the earth, directly opposite R, on the other side of the earth and invisible in the figure. Then FRDW is a circle of which RDW is the *diurnal* arc, and RFW the *nocturnal* arc. R represents sunrise, D noon, W sunset, and F midnight. It is easily seen that RFW is a much less arc than RDW, and that the sun in tracing out the arc RDW on a June day, would, in the morning at R shine against the north side of a house; at noon at D, against the south side; and at sunset at W, it would again shine against the north side, simply because, on this day the sun marks out an arc that reaches apparently two-thirds of the distance around the house.



Hence, at this latitude, at this time of the year, for a small part of the forenoon and of the afternoon, the sun shines against the north side of a house; and the farther you go north, the larger this part becomes, until at $66\frac{1}{2}^\circ$ north latitude, and beyond, the arc is wholly diurnal, the day circle is a complete one, and under this condition the sun shines against the north side for 12 hours and the south side for twelve hours.

The sun at noon never shines on the north side of a house in our latitude, for the northern limit of the sun's perpendicular rays is $23\frac{1}{2}^\circ$ north latitude. It is the turning of the earth that brings the north side of a house in position so as to catch the sun's rays; and under the condition of the figure, a house is turned into this position twice a day, during the early part of the forenoon and during the late part of the afternoon.

Query 66. What quantities of sugar at 3 cents per pound, and at 7 cents per pound, with 2 pounds at 8 cents, and 5 pounds at 4 cents, will make 16 pounds worth 6 cents per pound? (Irwin Metzner, Brient, Ind.)

Query 67. How much copper, specific gravity $7\frac{1}{4}$, with silver, specific gravity $10\frac{1}{2}$, will make 1 pound Troy, of specific gravity $8\frac{1}{2}$? (Id.)

NOTE.—The sixth example in arithmetic is solved on the interpretation that the 2% is the rate for the whole term of five years. If the 2% is the *annual* rate, the answer would be \$4,800.

QUESTIONS AND ANSWERS.

STATE BOARD QUESTIONS USED IN OCTOBER.

PHYSIOLOGY.

1. *What is meant by the insertion and the origin of a muscle?*

The place at which a muscle is attached to a bone, generally by means of a tendon, is called its *origin*; the end connected with the movable bone is its *insertion*.

2. *Show how the foot can be used to illustrate the three kinds of lever.*

First Class. In pushing against the ground with the toe. The ground represents the *weight*; the ankle joint the *fulcrum*; and the gastrocnemius muscle the *power*. The fulcrum is between the weight and the power.

Second Class. In standing on tip-toe. The ground now represents the *fulcrum*; the body is the *weight*, pressing upon the rear of the instep through the bones of the leg; and the gastrocnemius muscle is the *power*. The weight is between the fulcrum and the power.

Third Class. In lifting a weight on the toes. The ankle is the *fulcrum*; the *power* is exerted through the muscles of the anterior tibio-fibular region; the *weight* is on the toes. The power is between the fulcrum and the weight.

3. *What is the difference between the structure of the white and the gray matter of the brain?*

The gray matter is *cellular*; the white matter is *fibrous*.

4. *By what part of the blood is the nutriment distributed over the body, and how does it get from the blood vessels to the tissues?*

The nutriment is distributed over the body by the blood that is coursing through the systemic arteries, and it gets to the tissues by passing through the walls of the arterial half of the systemic capillaries.

5. *What is the function of the lungs?*

The lungs are the organs of respiration. The function of respiration is to furnish oxygen to the tissues, and to remove carbon dioxide from the system.

6. *Describe the heart.* (See any good text.)

7. *What is the spleen, and what are its supposed functions?*

It is the receiver of worn out and partially disintegrated red corpuscles; and the manufactory of white corpuscles.

8. *Describe the skin and state its functions.* (See any good text.)

The skin covers and protects the more delicate structures beneath it; serves as an important organ of excretion; and by means of the sweat, it regulates the temperature of the body. It is the seat of the organs of touch, and to some extent, it serves as an organ of absorption, and of purification of the blood.

HISTORY.

1. *In what particular was the founding of the colony of Georgia different from the other colonies?*

In its founding it differed from that of the other colonies in that (a) it was to afford relief for imprisoned debtors suffering in English prisons; (b) for many years neither rum nor slaves could be imported; (c) it was to serve as a military outpost to ward off Spanish attacks.

2. *What were the Navigation Laws and what their purpose?*

The Navigation Laws were oppressive acts passed by Parliament to restrict and control the colonial commerce and to aid England financially. Their purpose was four-fold: 1. They required that colonial trade should be carried on in ships built and owned in England or in the colonies, and manned to the extent of two-thirds of the crew by English subjects. 2. They provided a long list of colonial products that should not be sent to any foreign ports other than a port of England. Goods or products not in the list might be sent to any other part of the world. Thus tobacco, sugar, indigo, copper, furs, rice (if the rice was for a port north of Cape Finisterre), must go to England; but lumber, salt fish, and provisions might go (in English or colonial ships) to France, or Spain, or to other foreign countries. 3. When trade began to spring up between colonies, and the New England merchants were competing in the colonial markets with English merchants, an act was passed providing that if a product which went from one colony to another was of a kind that might have been supplied from England, it must either go to the mother country and then to the purchasing colony, or pay an export duty at the port where it was shipped, equal to the import duty it would have to pay in England. 4. No goods were allowed to be carried from any place in Europe to America unless they were first landed at a port in England."

3. *What provisions of the Constitution of 1787 were adopted to cure the defects of the Articles of Confederation as a fundamental law?*

It provided for a national House of Representatives, which could tax the people; a Senate, which represented the several states; a national executive, with an elective president at its head; and a national judiciary, with officers to maintain and enforce national decrees.

4. (a) *In the treaty of peace with Great Britain, signed in 1814, what disposition was made of the causes for which we went to war? (b) What did we gain by the war of 1812?*

(a) The treaty left things just as they were before the war began. Not a word was said about the impressment of sailors, nor the "Orders in Council," and other important questions were left to future consideration. (b) It strengthened the American feeling of nationality, and it showed that the "Period of Weakness" for this new nation was coming to an end. After our naval victories and the great victory at New Orleans, no European nation was likely to think it worth while to insult the United States.

5. *What disposition was made of Indiana's share of the "Surplus Revenue" distributed to the various States in 1837?*

It was applied to the payment of the interest due on the State's public debt, then very large on account of extensive internal improvements. (See History of Indiana.)

6. (a) *What was the "Dred Scott Decision"? (b) What was the effect of that decision upon the Northern sentiment?*

(a) It declared (1) that a slave, according to the Constitution, was not a person, but a chattel or mere piece of property; (2) that the Missouri Compromise, forbidding slavery in a part of the Louisiana Purchase, was not constitutional, since Congress had no right to interfere with slavery in the territories; (3) and that a master had as much right to take his slave with him into a free State as he had to take his horse, his cow, or any other kind of personal property. (b) It intensified the anti-slavery feeling in the North, where many threatened that they would not obey the decision. It split the Democratic party in the North, increased the number of Republicans, and made them more determined than ever to stop the spread of slavery in the territories.

7. *What great Union victories marked the month of July, 1863, and what did these victories decide?*

The battle of Gettysburg and the surrender of Vicksburg. These victories decided the fate of the Confederate cause. The surrender of Vicksburg cut the Confederacy in two; and the defeat of the Confederates at Gettysburg proved that they could not successfully invade northern territory.

GEOGRAPHY.

1. *Into what two classes are islands divided? Give example of each.*

(a) *Continental*, as Cuba and Porto Rico. (b) *Oceanic*, all those in the midst of the oceans and far from the continents. A great many are in the Pacific ocean, as the Hawaiian.

2. *Compare and contrast the principal mountain ranges of the two continents, eastern and western.*

The principal mountain ranges, The Rocky in America trend north and south, and face the Pacific ocean. In the old world the Himalayas run east and west and are near the Indian ocean. The Himalayas are the highest. Both, the Himalayas and the Rocky Mountains cause an inland arid area.

3. *What is a watershed? Trace two of the most important in the United States.*

A watershed (or divide) is any region from which the land slopes downward in two directions. The two most important in the United States are the one formed by the Rocky Mountains and the one formed by the Appalachian Mountains. The one formed by the Rocky Mountains runs through western Montana, eastern Idaho, western Wyoming, central Colorado, and western New Mexico.

4. *Show that the character of vegetation depends chiefly upon two conditions.*

Upon heat and moisture. There is an irregular, but gradual, decrease in the forms of vegetation from the moist equatorial lowlands toward the cold polar regions, and also toward the cold summits of high mountain ranges. The experience gained in cultivating vegetation in "green-houses" also establishes the fact that the character of vegetation depends chiefly upon heat and moisture.

5. *Name and locate the five chief cities of Indiana. Account for their rank in the commercial world.*

Indianapolis. Its position is central and on a line of eastern and western communication. It is the greatest railroad centre in the world not on navigable water. It is surrounded by an extensive fertile area, and the climate is pleasant and healthful.

Evansville is surrounded by a fertile region, is convenient to an extensive fertile southern area, and has the advantage of both river and railroad.

El. Wayne was once the site of a French post; this gave it a preference in settlement, and it gradually became a town of much importance. Then, being at the head of the Maumee river, and on the Wabash and Erie Canal, and also on a line with the direct route from Pittsburg to Chicago, it soon grew to be quite a railroad center and manufacturing city.

Terre Haute is on the National Road, the Wabash River, and on the Wabash and Erie Canal. It has a fertile area surrounding it, and is near extensive coal mines. The location is excellent for catching both east and west, and north and south travel. The site was well chosen, being on ground much higher than the river.

South Bend also has the advantage of both river and railroad. It is on one of the chief routes from the East to Chicago. The soil surrounding it is very fertile. It is noted for its large manufactories.

6. *Compare and contrast the vegetation of the temperate zones.*

Some of the tropical plants in each temperate zone are the same; as palms, the cotton plant, the olive, and the indigo plant. The plants peculiar to the south temperate zone (Australia) are the leafless shea-oak, and the acacia trees; also, many kinds of Eucalyptus trees. Some have several kinds of leaf on the same tree. Much of the foliage hangs vertically from the branches and is of a somber color. Some of the thorny plants of Cape Colony and of southern South America are peculiar to those regions. Other plants, such as orchids and lilies, are also to be found in the north temperate zone. The plant life of southern South America is much like that of the North Temperate zone. In both are to be found cone-bearing trees, birches and beeches.

7. *What effect upon the lives of a people do you attribute to climate?*

The cold climate prevents man from attaining the highest development of civilization because so much of his effort must be directed towards physical comfort. The hot climate has a depressing effect upon his activities, and also produces food so bountifully that there is no necessity for putting

forth special energy. The temperate climate is the "happy medium" wherein physical comfort is easily attained and the temperature pleasant and exhilarating. In this climate man reaches his highest development.

8. *Show, as to a class in the fourth grade, the difference between political and physical geography.*

If we take a trip over a portion of country and observe its surface, how it varies; and note the hills, the valleys, the streams, how they come to be as they are, how they are constantly changing; how the rain comes and where the water goes; the effect of heat and moisture, etc.; then we are studying physical geography. But if we find out how people are living, how they are governed and how the surface of the earth is divided into states or countries, then we are studying political geography.

9. *Name the common minerals. Where found? Show their usefulness to man, as you would explain to third grade pupils.*

The most common minerals are coal, iron and stone. (Have a conversation lesson in regard to the uses of each; in this way the well-informed teacher will, through question and suggestion, develop their chief uses.)

10. *How would you show pupils that the shape and motions of the earth have an effect upon its temperature?*

By use of a globe and a lamp, and by calling to our aid their own experience in regard to the degree of heat felt from the sun, at different times of the day and of the year.

ARITHMETIC.

1. *Eleven seconds elapse between the time when I see the flash and hear the report of the signal gun of a warship out at sea. How long will it require for that ship whose speed is 20 knots an hour to cover the distance between us if sound travels 1,090 feet per second?*

In 11 seconds sound will travel 11 times 1,090 ft. = 11,990 ft. 20 knots an hour is 1 knot in 3 min. 1 knot = 6,086 ft. The ship will require as many times 3 min. as the number of times 6,086 ft. is contained 11,990 ft.

$$\frac{11,990}{6,086} \times 3 = 5.9 + ; \text{ hence, } 5.9 \text{ min.}$$

2. *Write ten problems for a class beginning the study of long division in the order in which you would assign the problems. Give a reason for the place in the list that you give to each of the ten problems.*

The proper examples are: $460 + 20$; $680 + 20$; $900 + 20$; $1120 + 20$; $1340 + 20$; $1560 + 20$; $1780 + 20$; $4680 + 20$; $6900 + 20$; $11340 + 20$; and $15780 + 20$. These eleven problems constitute the first lesson to be assigned in long division. The ideas carried out in the above examples are (a) *gradation*, which is, itself, a reason why each example is just where it is; and (b) *simplicity*, in order that the pupil may not be burdened with difficult or unusual calculation while he is mastering the process, or plan of operation. That is good pedagogy, which concentrates the energies of the pupil upon the mastery of a single thing at a time. That lesson is not a good one which throughout scatters the energies of a pupil over several unknown lines.

3. What will it cost to tin a church steeple whose base is eight feet square and whose slant height is 84 feet, at 20 cents per square foot?

The surface of the steeple is made up of four triangles, whose base is 8 ft. and whose altitude is 84 ft. The area of one of these triangles is $8 \times 84 \div 2 = 336$; and the whole surface, or the 4 triangles, is 4 times 336 = 1344 (sq. ft.). 1344 sq. ft. @ 20 cts. = \$268.80.

4. A floor is 16 feet wide by 21 feet long. What will it cost to cover such a floor with a carpet 30 inches wide, at 65 cents a yard?

If the strips run the short way it will take 9; 9 strips @ 16 ft. = 144 ft. = 48 yds.; 48 yds. @ 65 cts = \$31.20. If the strips run the long way, it will take 7; 7 strips @ 21 ft. = 147 ft. = 49 yds. @ 65 cts. = \$31.85. If we simply divide the surface of the floor by the surface in 1 yd. in length of carpet, the process will be as follows: $(16 \times 21) \div (3 \times 2\frac{1}{2}) = 44\frac{1}{2}$, the number of yards necessary exactly to cover the floor. $44\frac{1}{2}$ yds. @ 65 cts. = \$29.12.

5. In teaching pupils to solve such a problem as the above would you have them pursue a process similar to that which they would follow were the floor a wall to be plastered? Give reasons for your answer.

No. Because the questions are not alike. They should be taught to solve a problem like the preceding one, in a manner as practical as possible, for the actual practical answer is the one needed in business life.

6. A boy's kite caught on a church steeple that rose from the front of the church to a height of 80 feet. The boy tied the string to a brick near the fence on the opposite side of the street from the church. The sidewalks on either side were 10 feet wide, while the street between was 50 feet in width. How long was the string which was drawn taut?

This is a problem involving the right-triangle. The perpendicular is 80 ft., the base is 70 ft., to find the hypotenuse. $80^2 + 70^2 = 11300$; the square root of 11300 = 106.3+; hence the string was 106.3 ft. long.

GRAMMAR.

1. What is English grammar?

English grammar is the science which treats of the laws and usages of the English language.

2. Argue briefly, but pointedly, in favor of the retention of grammar in the schools.

It should be retained in school because, when taught properly, it is a great aid to the art of speech and of literary interpretation.

3. To what extent would you have pupils resort to the correction of false syntax? Give reasons.

To the extent necessary in having them correct their own errors in their written work, or compositions. This they can not avoid, and they should be taught how to correct them both by rule, and by example of what is right. To place before them errors that they have not made is questionable, although there may be instances in which such a lesson could be made profitable.

4. *What should be the first form of grammar study required of young students? When should they enter upon the study of technical grammar?*

The first work in grammar that should be required of young students should be recognition of the two parts of a sentence, both as word groups and as ideas. The sentences should be very easy, but should be good literature. They should not enter upon the duty of real technical grammar until they reach the seventh grade.

5. *Outline briefly the work in grammar that you consider best for pupils of the fifth, sixth, seventh and eighth-year grades.*

To comply with this request here would be of no special benefit to any one. Nearly every "School Manual" has it presented as it is reviewed by its author.

SCIENCE OF EDUCATION.

1. *Name five characteristics of good teaching.*

(a) Unity of attention; (b) unity of thought as regards the teacher and the pupils; (c) concentration of energy upon only one idea or principle at a time; (d) all ideas and processes converging to a definite purpose; (e) earnestness of spirit.

2. *Name five characteristics of poor teaching.*

The opposite of each of the above.

3. *Name some characteristics of a good question.*

(a) It should be from suggestion, as regards the answer; (b) it should have some relation to the ideas already in the mind of the pupil. It should combine the known to the related unknown; (c) it should not be one that could be answered by *yes* or *no*; (d) it should not be too broad or comprehensive; it should ask for a definite idea, fact, or principle.

4. *What is the theme of "The Symposium?"*

Love.

5. *Show that "The Symposium" is dramatic.*

See pages xxxi and 106.

6. *Give Alcibiades's characterization of Socrates, in the speech illustrating the nature and power of love.*

See page 129.

7. *Point out some of the "divine and golden images" in which "The Symposium" is said to abound.*

See text.

READING.

1. *What connection does the ability to read well have with proficiency in other subjects, say, arithmetic or physiology?*

Ability to read well means skill in literary interpretation; and this skill is essential in acquiring ideas or information in other subjects, from a printed page. (See pages 71 and 72, Language Arts.)

2. *What is the distinction between reading and the study of literature?*

In reading, we deal with both the oral phase and the thought phase, the latter to as strong a degree as the ability of the pupil will permit. In literature, we deal wholly with the thought, or spiritual phase, and to a much stronger degree than we possibly could in reading. (See page 73.)

3. *Would the ideal school reader be made up of literary selections mainly or of miscellaneous extracts from various fields? Why?*

It should contain miscellaneous extracts from various fields, "food for the intellect, food for the heart, as well as tonic for the will." (See pages 73 and 74.)

4. *Show that the basic element in silent reading is the same as in oral reading. In what sense is there a close similarity between oral reading and grammatical analysis?*

"Silent reading is interpreting to the mind the language-elements as they stand on the page—words, phrases, clauses and sentences; oral reading adds to this the vocal expression that enables the listener to repeat the same process. The basic element in both cases is a ceaseless process of defining, interpreting and construing. The similarity between oral reading and analysis is even closer; the reader indicates the subject and the predicate of the sentence, as well as their modifiers, by the intonations, emphasis, and slides of his voice; the grammarian formally points out these elements by giving them their grammatical names. Reading is rapid analysis without the formal designation of the elements; analysis is slow reading with such designation." (See page 78.)

5. *Why is the influence of books like the Bible, or Shakespeare's works, or Milton's, so great on linguistic usage? Is the rapid multiplication of books and newspapers likely to have a good or bad effect on language? Why?*

Such influence is very great—"a hundred-fold-greater than all the grammars, dictionaries, rhetorics and language books ever written." (See page 75.)

6. *"A man may know all science and yet remain uneducated. But let him truly possess himself of the work of any one of the great poets, and, no matter what else he may fail to know, he is not without education." Make clear the sense in which this quotation is true.*

It is true because poetry is one of the most efficient means of education of the moral sentiment as well as of the intelligence. It is the source of the best culture. (See page 78.)

7. *What part does apperception play in the process of reading?*

"Other things being equal, those who know most already are the best fitted to learn. The people who saw most at the Columbian Exposition were the people who carried most to it. The Eskimos of the story found nothing to interest them in the streets of London. Apperception conditions all mental growth after the first beginning is made, and so is of universal value; but there are reasons why the fact should be especially borne in mind

when the immediate source, or channel of knowledge is a book." (See page 82.)

8. *"No one can really read Shakespeare or Milton unless he has something Shakespearean or Miltonic in him."* How does this principle explain the various degrees of pleasure experienced by different readers in reading the same selection?

"The reader must have one life with the author; he must be able measurably to think his thoughts, feel his emotions, and will his purposes. He need not stand on as high a plane as the author, but he must not fall too far below him." The various degrees of pleasure experienced by different readers in reading the same selection will differ exactly as their funds of ideas, of facts, and of images, differ. The reader who has the largest fund of such material will gather in or experience the greatest amount of culture or information from the selection. (See pages 82 and 83.)

MISCELLANY.

The headquarters of the State Teachers' Association will be at the Grand Hotel.

THE DENVER, COLORADO, School Board is composed of six members, two of whom are women.

RECENT measurements of the Chinese wall show it to be eighteen feet high and 1,300 miles long.

CHILI is the narrowest country, being 2,600 miles long, 200 at its widest part and forty at its narrowest.

THE TRI-STATE NORMAL at Angola reports everything in good condition. The attendance is large and the spirit is good.

RICHMOND.—The high school here maintains a high standard. It employs thirteen teachers with D. R. Ellabarger as principal.

BORDEN INSTITUTE is still moving on and doing good work. It employs six instructors. W. W. Borden is president and professor of geology.

LOGANSFORD employs sixty-two teachers with Superintendent A. H. Douglass at the head of them. The schools are moving along smoothly and doing good work.

A LETTER received from Texas recently contained the following: "Under the circumstances I can not afford it so I write you to please cancel my subscription."

BLOOMINGTON.—The "Rules and Regulations" of the schools, issued by Superintendent W. H. Fertich, give the information that these schools are in good shape and running smoothly.

THE INDIANA REFORM SCHOOL for boys held its Arbor Day service, October 31st. Brother Charlton never allows an opportunity to impress a good lesson on the boys to pass unimproved.

SEYMOUR sends out a neat manual. It contains all that is usually found

in such documents, well arranged and in addition gives a history of the schools. H. C. Montgomery is still superintendent.

PLEASANT TOWNSHIP of Wabash county takes the lead in issuing a manual of its own, and it is a creditable one, too. H. H. Shipley, of Laketon, is trustee. The manual sets forth all the schools with their teachers and pupils by grades, and gives a short history of each school.

TAYLOR UNIVERSITY, located at Upland, has begun this year's work with a largely increased attendance. Students come from many of the other states. It sustains a normal department under the care of B. W. Ayres, which is well patronized. The outlook for the school seems to be bright.

THE City Superintendents of Indiana will hold their annual meeting at Indianapolis, November 10, 11, 12. Headquarters will be at the Grand Hotel. An excellent program is provided and a large meeting is expected. B. F. Moore, of Frankfort, is president, and W. D. Kerlin, of Martinsville, is chairman of the executive committee.

FRANKLIN.—The new superintendent has planned with his teachers to take up and study regularly the two Teachers' Reading Circle Books. They decided to make "Social Elements" the major, and "Plato" the minor. The schools have been moving on with uniform good feeling and with entire confidence in superintendent N. C. Johnson.

CRAWFORD COUNTY.—Superintendent Chas. A. Robertson has issued an "Official Program of Daily Recitations" so that a particular subject will be recited in all the schools of the county at the same hour. This is a good plan, providing it is modified to suit the special needs of each school. This county had a superior institute last summer with R. H. Holbrook and A. J. Kinnaman as instructors.

MARION.—The schools here opened September 12th in good shape, with seventy-four teachers—ten of them in the high school. Superintendent Weaver was at home from the army but was sick, and has not yet fully regained his strength. As the war is over he has tendered his resignation as chaplain of the 160th regiment. The schools are all full and a new eight room building is in the process of erection.

INDIANA UNIVERSITY has with it this year five professors who have been absent on leave of absence, and have returned to their work. Several others are out on leave of absence, doing post graduate work and preparing themselves for greater usefulness. These places are all filled by competent men. Only specialists of unusual ability are given permanent positions. The attendance is unprecedentedly large. Members of the faculty of the University visited fifty county institutes last summer. President Joseph Swain will be glad to answer any questions.

DUBOIS COUNTY.—Geo. R. Wilson, the superintendent, has issued a "Hand Book" for his schools, and it is probably the most complete thing of the kind in the state. It comprises nearly 200 pages, and is substantially bound in cloth. It touches every phase of school work, and a teacher who will study it need not trouble the superintendent with questions as to what

to do or when to do it. Special attention is given to the reading circle work, both teachers' and children's. Mr. Wilson is liable to do such a thing as this whenever he has opportunity.

OSSIAN opened its schools October 31. This late beginning was caused by delay in completing a new school building. The new building contains eight rooms and is very convenient and very complete. Trustee Swain deserves much credit for this comfortable home for the children, of which Ossian may well feel proud. Ossian employs seven teachers and sustains a four year high school course. J. C. Hamilton is principal.

CIGARETTES.

A prominent railroad man is the latest to throw down the gauge of battle to the cigarette. He is a general freight agent on a large railroad, and employs many young men as clerks. He has announced that in the future he will not employ any young men who are addicted to the cigarette habit, and further than this, he expresses his intention of getting rid of all cigarette fiends now working in his department. He gives the following as his reasons for this decision: "Among the two hundred in my service thirty-two are cigarette fiends. Eighty-five per cent. of the mistakes occurring in the office are traceable to the thirty-two smokers. They fall behind with their work, and when transferred to other desks, which men who do not smoke handle easily, they immediately get along just as badly, showing that it is not the amount of work, but the inability or indolence of the performer. The smoker's average is 'two days off' from work per month, while the non-smoker's average is only one-half of a day in the same time. The natural conclusion is that the thirty-two young men are holding positions deserved by better men."—*Canadian Teacher*.

SOUTHERN INDIANA CITY SUPERINTENDENTS' CLUB.

This club held its first meeting for this school year at Madison, beginning October 13. It was not largely attended, but was a profitable meeting. On Thursday evening, President Parsons gave an address which was well received.

Friday, until 3 o'clock P. M., was spent in visiting schools. The superintendents divided into groups and so arranged it that all the schools were visited. After the visits were over the superintendents spent some time in commenting upon what they saw. The club members have a mutual understanding that they shall criticise schools frankly and fully. They point out good features and bad features alike, for only thus would visits and criticisms be profitable. Most of the comments were favorable, and all commended the spirit of the schools and praised the kindly relation that exists between teachers and pupils. At the conclusion of this meeting the superintendents and teachers listened to an address by Edward Eggleston, of "Hoosier Schoolmaster" fame. Madison was Mr. Eggleston's home many years ago and it is his present home. Everybody was pleased with the address. It was up-to-date in all regards.

In the evening Professor Lowes, of Hanover College, gave an address on "Browning as a Teacher," which was full of enthusiasm and good sense. Following Professor Lowes's address came a banquet, tendered the superintents by Superintendent McDaniels and his teachers.

The banquet closed with short speeches by Geo. F. Bass, T. A. Mott and others. The State department was represented by Deputy F. A. Cotton. The editor of THE JOURNAL was unable to be present, but gets his information from those who were, and he feels justified in saying that the meeting was a good one and that the Madison schools are in excellent working order.

PERSONAL.

J. Z. BELL rings to order at Cato.

J. H. SCOTT presides at Port Fulton.

E. W. RUST is principal at Winslow.

F. E. CHAPPELL is located at Otwell.

W. L. PECK is principal at Sellersburg.

J. W. HOLTON holds the fort at Ohio Falls.

H. O. BREWSTER stands highest at Stendal.

L. D. OWENS is high school principal at Elwood.

ALLEN BARR is principal of the schools at Algiers.

CHAS. I. KERR is principal of the school at Laketon.

J. W. SCALES preaches the school gospel at Spurgeon.

F. F. HOSTETTER is keeping things together at Union.

E. F. CORN tells the boys and girls what to do at Augusta.

W. A. BATTLES is waging war against ignorance at Velpin.

J. B. PEARCY continues as high school principal at Anderson.

I. V. BUSBY continues in charge of the schools at Alexandria.

W. H. FOREMAN is superintendent of the schools at Petersburg.

C. M. MARBLE is still in charge of the Jeffersonville high school.

JNO. W. CARR continues to have matters well in hand at Anderson.

JOE T. GILES is the name of the principal of the Alexandria high school.

MISS ELIZABETH L. HORNET, an Earlham graduate, is principal of the high school at Crown Point.

D. S. KELLEY is conducting the Jeffersonville schools in such a way as to command the respect and support of teachers, patrons and pupils.

MISS LAURA E. AGAN, who taught for the last ten years in Huntington with great acceptance to superintendent, parents and pupils, tendered her

resignation at the close of last school year, and is now taking a long needed rest. She will probably enter the work again next year.

T. F. FITZGIBBON, having had a year's post graduate work at Indiana University, is back again in his place as superintendent of the Elwood schools.

W. F. AXTELL says that the Washington schools are prospering. The school buildings of Washington are not surpassed by any city in Southern Indiana.

WM. A. DAVIS, well known in Whitley and Noble counties, is now teaching in Clarkson, Miss., but he still remembers kindly his Indiana friends, and reads the JOURNAL.

J. H. SCHOLL is superintendent of the schools at Carthage, Rush county and not Rushville, as stated in the JOURNAL last month. Samuel Abercrombie is superintendent at Rushville and has been for several years.

JESSE H. BROWN, of Indianapolis, and formerly superintendent of drawing in the Indianapolis schools, has a lecture on "Art" which he makes both instructive and entertaining. Mr. Brown uses off-hand sketches, by which he illustrates all his points, and he gives an enjoyable entertainment.

GEO. W. NEET, who was for many years at the head of Spiceland Academy, but is now in charge of the Department of Pedagogy in the Northern Indiana Normal School at Valparaiso, is making a good start in his new position. A letter from one who has been on the ground, says of him: "He is doing most excellent work. I am sure he will prove himself worthy of the position."

J. F. BROWN, vice-president of Earlham College, recently gave his lecture on "Socrates the Teacher" to the Richmond teachers, and pleased them so well that he was invited to continue the discussion in two additional lectures. Wherever Prof. Brown gives a lecture on Socrates or on Plato, he is sure to be called back. His work along these lines is most excellent.

BOOK TABLE.

HARPER'S WEEKLY for October 29, is full of interest and all the vital questions of the day are pictured and discussed. As a history of the late Spanish war, this paper is unequalled. In schools making a point of current events, there could be no better source of information used.

SPRAGUE'S PRIMER FOR SUPPLEMENTARY USE, published by Rand, McNally & Co., of Chicago, is one of the most beautiful and artistically arranged and illustrated little books that has yet come from any press. It is arranged in progressive form so as to be adapted to the gradual advancement of the child. It needs to be seen to be fully appreciated.

SCHOOL ROOM PLAYS. By Katherine Beebe. Published by Thomas Charles Co., Chicago. Miss Beebe is an expert in her line, and this little book will be a delight and a help not only to kindergarten teachers but to

teachers in primary schools. The plays have been selected and arranged with a view to use in primary schools. Many of them are in connection with songs. The little book is neatly bound in paper cover and costs 25 cents. Write to Thos. Charles Co. for a copy.

MRS. BALLINGTON BOOTH, of "The American Volunteers," is writing out her experiences in American prisons, and in the slums of New York, for *The Ladies' Home Journal*. Mrs. Booth has perhaps come closer to the lives and confidences of the men and women in prisons, and to know the poor better, than any other woman living. She will not only tell what she has seen, but she will point out what her experience has shown her to be the most effective way in dealing with the people of the prisons and the slums.

CHRISTMAS ENTERTAINMENT, edited by Alice M. Kellogg. Published by E. L. Kellogg & Co., New York. This is *one* in Kellogg's series of Special Day Books. It contains new songs set to old tunes, drills, motion songs, tableaux, recitations in costume, short plays, all specially selected for the celebration in schools of the great mid-winter holiday, Christmas. It would be of great value to any teacher who wishes to observe the day (and what teacher does not?) and its low price, 25 cents, brings it easily within the reach of all.

BIBLE READINGS FOR SCHOOLS. By Hon. Nathan C. Schaeffer, State Superintendent of Schools of Pennsylvania. This is a selection of the most appropriate and inspiring passages from the Old and New Testaments arranged conveniently for school use. A collection of forty-eight narrative readings gives the chief Bible stories from the creation to the shipwreck of St. Paul. Some of the parables, selections from the Psalms, passages from the Proverbs and Prophets follow. The book can be used as a class reader. American Book Company. Cincinnati, Chicago and New York.

IN THE November *Century* which begins a new year, Captain Sigsbee begins his "Personal Narrative of the Maine." This is a contribution to the *Century's* new war series which will include articles by most of the leading officers in the army and navy. Marion Crawford begins a new serial in this issue entitled "*Via Crucis*." Paul Leicester Ford begins a new series of profusely illustrated articles on "The Many-sided Franklin." The frontispiece is a portrait of Dr. Weir Mitchell, author of *Hugh Wynne*. His many admirers will be glad to see this picture. This November issue is an excellent number of an excellent magazine.

THE WERNER ARITHMETIC. Edited by Frank H. Hall, and published by the Werner School Book Co., of Chicago. This excellent series of arithmetics is now complete. The valuable features of Books I and II are a guarantee of good qualities in Book III. Teachers who have seen the first books will be glad to see the third, and THE JOURNAL can assure them that they will not be disappointed, even if their expectations are very high. The gradation is so complete that the child advances as by a spiral staircase, rather than by steps. The keynote of the author is: "If the child can not solve the problems presented, do not explain, but give him problems that he

can solve, and so lead up to and over the difficulty." The plan of the books is unique and thoroughly pedagogical.

"PRACTICAL IDEALISM" is the title of a book written by Mr. De Witt Hyde, president of Bowdoin College, and published by Macmillan Company, of New York and Chicago. Part I treats of the "Natural World" under following heads: "The world of Sense-perception," "World of Association," "World of Science," "World of Art." Part II treats of the "Spiritual World," under the heads: "The World of Persons," "World of Institutions," "World of Morality," "World of Religion." These subjects are ably handled and every one interested in this line of reading should have this book. The style is clear and forcible and not too scientific. Price, \$1.50.

SYLLABUS OF LECTURES ON EUROPEAN HISTORY. By Andrew Stephenson, Ph. D. (J. H. U.), Professor of History in De Pauw University. 8vo., 343 pages. Price, \$1.50. The Inland Publishing Co., Terre Haute, Indiana.

This book is an analytical outline of the world's history, divided into four parts—*Imperialism* (Eight Lectures), *Feudalism* (Nine Lectures), *Papalism* (Twelve Lectures), and *Nationalism* (Nineteen Lectures). Each lecture is outlined carefully and scholarly. The references to sources and authorities are numerous. The lectures, as arranged, form a unified historical course, rich and comprehensive. Every student of history should have this book. There is no other like it. At present it occupies the field alone.

THE DEVELOPMENT OF THE CHILD. By Nathan Oppenheim. New York: The Macmillan Company. Cloth. Price, \$1.25. This is an exceedingly helpful book. It approaches more nearly being sane in the view of cautious men than such works usually are. The first three chapters are tedious because they record so many facts that are uninteresting, and the conclusions from which would have been accepted, if at all, on half the evidence. The five remaining chapters are sufficiently interesting, direct, and intense to carry the reader forward with greater earnestness of purpose than ever to right great wrongs in the home, school, church and society. The author has a great purpose, and his treatment is both scholarly and original. It is refreshing to find scholarship, thought, and purpose combined in a great mission.

HORACE MANN AND THE COMMON SCHOOL REVIVAL IN THE UNITED STATES, by B. A. Hinsdale, Professor of Pedagogy in Michigan University. Charles Scribner's Sons, New York. This book belongs to the "Great Educators" series being published by this house. The book comprises about 325 pages and sells for \$1. This is without question the best life of Horace Mann yet written. It is comprehensive and at the same time concise. It treats of all the different periods of Mr. Mann's life and of the different kinds of work he did in a dispassioned, unbiased manner. Mr. Hinsdale deserves special credit for doing what no former biographer has done, viz.; he has treated fairly his life and work at Antioch College. As Horace Mann did more for public school education than any other man that has ever lived

The Natural System of Vertical Writing

—BY—

A. F. NEWLANDS and R. K. ROW.

The Natural System of Vertical Writing is used in the following cities of more than 10,000 population: Cleveland, Ohio; Brooklyn, N. Y.; Duluth, Minn.; Kansas City, Mo.; St. Louis, Mo.; Elmira, N. Y.; Columbus, Ga.; Columbia, S. C.; Hannibal, Mo.; Lynn, Mass.; Chattanooga, Tenn.; Ithaca, N. Y.; Los Angeles, Cal.; Manchester, N. H.; Brookline, Mass.; Chicopee, Mass.; Clinton, Mass.; Fall River, Mass.; Lowell, Mass.; Marlboro, Mass.; Medford, Mass.; Newton, Mass.; Oswego, N. Y.; Pittston, Pa.; Saginaw, Mich.; Stillwater, Minn.; Montgomery, Ala.; New York City, N. Y.; Ogdensburg, N. Y.; Rome, N. Y.; San Diego, Cal.; Taunton, Mass.; Nashua, N. H.; Oil City, Pa.; Pawtucket, R. I.; Sacramento, Cal.; Saratoga Springs, N. Y.; Wilkesbarre, Pa.; Baltimore, Md.; Jacksonville, Fla.; Beverly, Mass.; Boston, Mass.; Chelsea, Mass.; Worcester, Mass.

READ THIS.

CLEVELAND, OHIO, PUBLIC SCHOOLS,

Office of Superintendent of Instruction.

August 30, 1897.

Gentlemen:—

Your recent note making inquiries in reference to the Natural System of Vertical Writing has been received. In response I have to say that we have used the system one year in Cleveland. It has proved a great success—even greater than any of us expected when we adopted it. We are especially pleased with the large hand of first and second books. I only regret that first, especially, is not larger. I had, before seeing these books, tested that matter of size in writing in the Indianapolis schools. Pupils should at first write large and gradually reduce to proper size. I have also, for many years, been an advocate of doing away with guide lines to a much greater extent than any publisher has been willing to exemplify until very recently. The guide lines heretofore used in systems of penmanship like the Spencerian have been a constant menace to good writing. They injure the eyesight of children, cramp the writing, and make the child believe he can write when he can only do so by being held up by the lines. He "goes wild" when these are removed.

Our pupils have taken intense interest in their writing, have achieved legibility that is astonishing, and speed that is very gratifying. Their writing does not have the grace of curve exhibited by the Spencerian System, but it has a legibility so much greater, so much more serviceable, that we are glad to make the exchange. When pupils did not have drawing to develop and satisfy the æsthetic nature, we were obliged to pander to it through the writing. There is no longer any necessity for this. Indeed, the Natural System of Vertical Writing has that kind of beauty which is within the bounds of utility; it is therefore doubly valuable. I am sure that our pupils and our teachers are almost unanimously in favor of the Natural System of Vertical Writing.

Very truly yours,

L. H. JONES,
Superintendent.

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INDIANA " SCHOOL • JOURNAL

VOL. XLIII.

DECEMBER, 1898.

NUMBER 12.

THE PORTER COUNTY CHILD-STUDY ASSOCIATION.

More than a year ago about fifty or sixty of the teachers of Porter County, Indiana, organized themselves into a body for mutual help in practical Child-Study. These teachers did more than organize; they actually helped one another in practical Child-Study. On this account, a few words about this unique organization and its plan of work may not be out of place in the columns of the JOURNAL. No machinery hampered the efforts of these teachers. No constitution was adopted. Unity was maintained through common interests. A president to preside at meetings, a secretary to keep track of what was done and a treasurer to spend the money, were elected. A program committee of three was appointed by the president, to assist in arranging the very best programs for the meetings that were held about every six weeks during nine months. More will be said about these programs later on.

This body of teachers thought that one of the first things it must do, was to make itself acquainted with the best literature extant on the study of the child. This would give the individual members the benefit of the best thoughts of all kinds of students of child nature and save much labor and perhaps some children. So a fee of twenty-five cents was levied—and paid. Such books as the following were bought—and studied: "Child Nature," by *Elizabeth Harrison*; "Children's Rights," by *Kate Douglass Wiggin*; "The Early Training of Children," by *Mrs. Maleson*; "School Hygiene," by *Newsholme*; "Eating and Drinking," by

Hoy; "The First Three Years of Childhood," by *Perez*; "Infant Mind," by *Preyer*; "The Sense and The Will," by *Preyer*; "The Development of the Intellect," by *Preyer*; "Intellectual and Moral Development of the Child," by *Compayre*; "The Growth of the Brain," by *Donaldson*; "Psychology of Childhood," by *Tracey*; "Studies of Childhood," by *Sully*; "Children's Ways," by *Sully*; "Education of the Central Nervous System," by *Reuben Post Halleck*, etc.

Such periodicals as the *Pedagogical Seminary*, *American Journal of Psychology*, *Educational Review*, *Child Study Monthly*, etc., were also at the disposal of the Association, and were drawn upon as much as the books. The latter were let out on the circulating library plan. When not out they were in the office of the county superintendent who kindly acted as librarian, and unlike many another became acquainted with more than the titles of the books. The conspicuous feature about the work done by the members with these books was not the mere assimilation of their contents, (that would have been good, indeed,) but the actual bringing of the truths exposed, to bear upon their daily work.

The second line of work followed by the members of this society, was the actual study of the child at first hand. The first line of work indicated above, helped very much in this, but could in no wise take its place. This substitution of a *study of Child-Study* for a *study of the child* is a fatal mistake that too many have made. These teachers had associated themselves together for the purpose of studying children. They studied the literature as a means—not an end. They studied children more than the child. Tommie, and Jennie, and Lucy, and Jane were individual studies. Children in *general* and *average children* were let alone for specialists to analyze and talk learnedly about. Besides, these teachers in Porter county had never seen any of these beings. Most of them had been and were teaching in the country and the *averages* don't grow in the country and *generals* are perhaps found only at great educational gatherings and in books. Tommie was a boy,—alive—sometimes too much so, in the opinion of his teacher. He was the thing that had to be taught and managed. He and his kind were only beings the teacher had to deal with in the school-room, and so through sheer necessity she dealt with them. Happily this simplified the problem. After all the teacher had only individual children to study. But this was in

Porter county. In other counties they surely have something else.

I repeat these teachers studied Tommie, and Jennie, and Lucy, and Jane. They studied their physical make-up and they studied their mental make-up just as they would have studied any thing else's make-up. They observed whether Tommie was healthy or puny or generally indisposed ; whether he was regular in his habits ; whether he ate too much or too little ; whether he ate things that didn't agree with him ; when he took his exercise and how much and what kind he took and the effect of each ; when he worked best and when he worked worst and how much he could stand ; when he slept and how long and how well ; his muscular co-ordination and any signs of nervousness or fatigue ; what things he liked to do and what he didn't like to do—both in and out of school ; how fast he could turn off work ; how well he did it ; his sense of honor ; his sense of neatness and cleanliness ; what treatment he received well from others and what he resented ; what kind of companions he kept and what kind he didn't keep ; how he spent his time out of school ; his home and its conditions and spirit—a supremely important thing to note—; any peculiarities, abnormalities, or defects—such as of the eye, ear, throat, etc. ; the changes he passes through—their causes and effects ; etc. Perhaps this wasn't Child-Study but these people thought it was, and felt that it was the kind that they ought to do in order to do the best by these *individual* children. I do not mean to leave the impression that no generalizations were made. Some conclusions of general application were inevitable and for that matter desirable. What I do wish to emphasize is the fact that these students of children were teachers, not scientists ; that they were studying the details of their own school children as a means of doing their duty by them as well as working out their own solution ; that they met from time to time and swapped ideas. This kind of work helped them teach better schools—their first duty. It gave them the best possible preparation for understanding the scientist's work on child nature which in turn enabled them to teach better schools,—their first duty.

I stated that meetings were held about every six weeks. The following is an actual program that was given at one of these meetings and will serve as a type :

"Nervous Diseases in Children,"—Dr. F. C. Ketchum.

"Hygiene of the Ear,"—Prof. W. L. Weems.

"Child-Study for Mothers,"—Mrs. Gertrude S. Bell.

"The Training of the Imagination of Children,"—Supt. A. A. Hughart.
Reports and Discussions.

These reports and discussions were upon the actual things that concerned the teacher in her own school and were perhaps the best feature of the program.

The following counties have local Associations doing work on the same plan: Lake, Marshall, Stark and Tippecanoe.

I close by appending the criticism of the county superintendent who carefully observed the *results* of the work upon his schools. I may also state that the society follows the methods of study that were reported in the December (1897) and February (1898) numbers of the JOURNAL.

Porter County Child-Study Association:

The Association was organized in September, 1897, by Prof. Sanford Bell. It has done good in three ways. First, it has caused members to broaden along the line of professional reading and receive an insight into the work that is being done by the specialist along the line of Child-Study. Second, the teachers have been able to apply some results in the school room. It is a notable fact that better sanitary conditions have been brought about. Teachers give attention to the heating, lighting, and ventilation of the rooms. Tests were made as to the condition of the sight and hearing of the children and many a dull child was found to be dull on account of defective hearing or seeing. Visits were made to homes and a study was made of the environment of the child thus giving the teacher a decided advantage in getting the personal equation of the child.

A new impetus is given to teaching. The trend is toward the study of life rather than the mechanical manipulation of method.

Third, and perhaps the most lasting effect of the year's work was the result upon the parents. Heretofore many parents looked upon Child Study as a mere fad, but when they discovered that the teacher understood their child much better than they did themselves, this fad idea passed away and many a good father and mother has come to realize that this is the best way to solve the great problem.

This alone has caused great interest to be taken by patrons in the schools of Porter county. Scales have fallen from their eyes and they see that the teacher is striking at a vital point in the physical, intellectual, and spiritual development of their children.

I have attempted to enumerate but few of the results of the work of the Association as I have seen them from the standpoint of superintendent. There are many that can not be given; for the best result of any great movement can not be described, it is a growth. The Association starts out this year with a membership of eighty.

A. A. HUGHART, *County Superintendent.*

Indiana University, Bloomington, Ind.

ONE DISTRICT SCHOOL.

JOSIE BUNDY.

Quite recently while spending a few days in our old country neighborhood, my attention was directed to the district school by overhearing some fragments of the children's conversation, which indicated an unusual degree of interest.

So one morning, happening to pass by the school house, I was moved by their earnest solicitations to stop, if I could only stay a minute.

As I went up the steps, remembrances of a smoky interior, with battered seats and charcoal frescoes on the wall, came into my mind, but on crossing the threshold I could not suppress the exclamation of surprise that rose to my lips, for the very atmosphere spoke of cleanliness and order, while from the prettily decorated walls, the pictured faces of Washington, Lincoln and Whittier looked down.

"What a charm you have worked in the old school-room," I said to Miss A., after her cordial greeting. "If it were not for the rows of seats, the maps, charts and blackboard, I would think I had stepped into some one's home."

"You could not please us better than by putting such an interpretation on our school-room," she said with a smile. "We decided at the very first of the term that as we would spend a great deal of our time here this winter we would try to make the place look as home-like as possible, and we have been working together to accomplish this end."

Seeing that I was an interested listener, and noting that it was twenty minutes till school time, she went on : " Our trustee had not been altogether indifferent to the good effect pleasant surroundings have upon children, so to begin with, we had a clean room, neatly papered, good blackboards, and furniture in a fairly good condition."

Then the first week of school we began making little excursions at noon into the woods to see what nature had to contribute for decorations. The fern leaves pinned around that group of pictures were the first fruits of those pleasant rambles, which were the means not only of extending our acquaintance with the fern family, but also of getting better acquainted with one another.

" You should have seen the eyes that brightened with interest when I told them the story of the petrified fern that grew 'in a valley, centuries ago,' when 'earth was young and keeping holiday.' "

I think they understand better now how those pretty rocks in the chalk-rack bear the record of plants and animals that lived long ago in the earth's childhood.

" All through the early fall days we had the golden rod and aster each with its story to tell, and we have pressed a collection of autumn leaves which we will bring out in January, when the memory of their brighter hues will not be quite so fresh in our minds as they are now.

" Our library books have been carefully covered by the girls, and the little curtain that screens them from sight was the result of a penny collection. The flags over Washington's picture belong to the children, and those yards of birds and roses are bonds of mutual interest, having been obtained by sending off 'lion heads,' each child contributing one or two.

" Perhaps you have already guessed," she continued, " that this month's work is to savor of the Christmas time."

Yes, I had noticed the holly border along the upper margin of the board, and a suggestive verse that ran something like this :

" And still the days grow shorter ;
The fields look bare and brown,
And thick and fast the snowflakes
From the gray skies flutter down.

But cheerier burn the fires,
While the children sing and play ;
For the gift December brings them
Is a merry Christmas Day."

"The holly border," said Miss A., "was stencilled on the board during the odd minutes of intermissions by the older boys and girls, and traced by the younger pupils whose admiration of the green leaves and bright scarlet berries is greatly increased, because they have helped make them.

"The word 'December' was also put on the board with stencils, and each morning some pupil who comes early, changes the date, and underneath writes the time when the sun rises and sets.

"The evergreens will come in for a share of our attention this month, for you know December is pre-eminently the time of the 'murmuring pines and the hemlocks,' partly because of their contrast with the leafless branches of the other trees, and then, too, they are so pleasantly associated with the 'Christmas Tree.'"

"Well," I thought, "a country school where the children are taught about evergreens! Where, oh where, are the arithmetic and grammar?"

I do not know whether she divined my thoughts or not, but her very next remark was, "We will take no extra time for this work—a program full of arithmetic, reading, and all the rest of the list will not permit. But the evergreens will weave themselves into our language lessons.

Perhaps you remember reading that in Pestalozzi's school the pupils spent hours examining the old, torn wainscoting of their room, and forming sentences about the number, form, position and color of the holes and rents they found in it. We have all reverence for the spirit of Pestalozzi's work, and believe it is a sign that "his soul is marching on" when we are prompted to let our language lessons grow out of the thought and purpose in flower, fruit and bird.

"I want the children to note the peculiar fitness of the evergreens to the winter winds and snow; how the long needle-like leaves let the snow slip off, and how the flexible limbs bend with the force of the wind but do not break. We will note, too, the other family characteristics of this class of trees, and likewise the differences in leaf and fruit that give us the pine, spruce, hem-

lock, cedar and arbor vitae. The children will write their observations, and as an incentive to good work, the best exercises will be copied in a blank book, kept for that special purpose.

"Our reading lessons will be the medium for diffusing the Christmas spirit among the children so we will read all the Christmas lessons; 'The Little Christ Child,' 'Christmas Eve,' 'Preparing for Christmas,' 'Fezziwig's Dance,' and 'The Arsenal at Springfield,' which savors of future peace and goodwill.

"Then for our morning readings we will hear again 'Bird's Christmas Carol,' that story of the little girl who thought it more blessed to give than receive,—and perhaps we will have parts of Dickens's 'Christmas Carol' which the older pupils will appreciate.

"Last of all to deepen the meaning of the Christmas-tide and make us ready not only for it but for the New Year, we learn one Christmas song. I think this year it will be that one of Phillips Brooks, called 'Little Town of Bethlehem.'

[I looked this song up on going home and insert it right here that you may know what Miss A's pupils are singing this month.]

O little town of Bethlehem
How still we see thee lie!
Above thy deep and dreamless sleep
The silent stars go by.
Yet in thy dark street shineth
The everlasting light,
The hopes and fears of all the years
Are met in thee to-night.

How silently, how silently
The wondrous gift is given!
So God imparts to human hearts,
The blessings of his heaven;
No ear may heard his coming
But in this world of sin,
Where meek souls will receive him still,
The dear Christ enters in,

O Holy child of Bethlehem
Descend to us, we pray !
Cast out our sin, and enter in ;
Be born in us to-day ;
We hear the Christmas Angels
The great, glad tidings tell ;
O come to us, abide with us,
Our Lord Emmanuel !

Just when Miss A mentioned this, their Christmas song, the clock-hands signaled the time for the second bell and I rose to go regretting that Sunday duties kept me from staying longer.

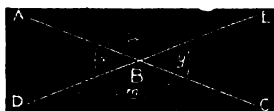
I passed down the steps thinking what a veritable oasis this school-room was in the midst of the winter desolation round about it. And as the sound of fresh young voices in song floated out on the morning air, I thought how the happy helpful influence of these school days would be wafted down the lapse of years and these same children—men and women grown—would bless the memory of her who had been their inspiration.

North Vernon, Ind.

THE LOGIC OF MATHEMATICS.

Mathematics is the most logical logic known. Algebra and geometry present the two great methods of reasoning. Algebra states the premises (facts) and hunts the conclusion. Geometry states the conclusion and hunts the premises. Less technically, algebra states facts, conditions and deduces its conclusions ; geometry states its proposition, *i. e.*, conclusion, and hunts, *i. e.*, builds up the proof. Algebra analyzes, geometry synthetizes. These are shown in the following : (1) Algebra—A has a given amount of money ; B $3\frac{1}{2}$ times as much as A, and C 4 times as much as A and B together, and all together have \$100,000 ; how much has each? Here analysis reveals the relations. After the assumption that A's money is x , the remaining steps are obvious and easy. Hence, a full statement shows, $A = x$, $B = 3\frac{1}{2}x$, and $C = 4(x + 3\frac{1}{2}x)$. The second and last step in the reasoning gives the relations of all to a definite sum, which equates as follows: $x + 3\frac{1}{2}x + 4(x + 3\frac{1}{2}x) = \$100,000$. Here ends the reasoning process, *i. e.* the *analysis*. The remainder is rule work, mere intellectual mechanism.

(2) Geometry—as stated above, inverts the order of algebra, *i. e.*, states the *conclusion and hunts the proof*. Example: “If two straight lines intersect each other the opposite or vertical angles are equal.” The following is the proof:



The figure drawn, we are to prove the angle x equals the angle y , *i. e.*, $x = y$.

(In all cases possible, a single letter, as x , y , etc., should represent an angle, instead of the old fashion of three. Simplicity and clearness require this. Here, as in rhetoric, brevity is force. In rhetoric never use three words when one will do; so in mathematics, never use three letters when one will do.)

Proof—The straight line AB meeting the straight line DC, by preceding proposition the sum of the angles $x + m = 2$ right angles. By the same proposition, the angles $y + m = 2$ right angles. By the axiom which says things that equal the same thing, equal each other, $x + m = y + m$. By another axiom, take *equals from equals, equals remain*, if we take m from each member of the equation, we have $x = y$, the proposition to be proved. Thus we have stated the proposition and hunted the proof. The process is *synthetic*, versus algebra, *analytic*.

We wish to show that, following the language of logic, the geometric mode is syllogistic, not only so in general, but in every step. To help the general reader, we here present a familiar syllogism. Thus: Major premise—All men are mortal. Minor premise—Wm. Jones is a man. Conclusion: Wm. Jones is mortal.

Geometry follows this method. Taking the proposition as above, we have the following syllogisms in proof:

(1) Major premise—In all cases, when one straight line meets another straight line, the sum of the angles on the same side of the crossing line = 2 R.

(2) Minor premise—The straight line AB meets the straight lines DC; hence, (3) Conclusion: $x + m = 2$ R.

(2) By the same reasoning $y + m = 2$ R.

(1) Major premise, *axiom*—Things = same thing, = each other.

(2) Minor premise— $(x + m)$ and $y + m$ each = same thing; hence, (3) Conclusion: $x + m = y + m$.

(1) Major premise, *axiom*—Equals from equals, equals remain.

(2) Minor premise, the equal m from both numbers of the of the equation—

$$\begin{array}{r} x + m = y + m \\ - m = - m. \end{array}$$

Hence, (3) Conclusion: $x = y$, the thing to be proved.

By the same process m can be proved equal n . Hence the truth of the *proposition*.

This is the geometric mode, also the strictly logical. This mode in contracted form is used by the mass of the people, even though untrained in the technical rules of logic. Example—Says A to B: "That young man C will come to a bad end." "Why?" says B. A: "He is an idler, a drinker and a gambler." B: "If so, I agree with you." Here are all the elements of the syllogism.

(1) Major premise—Idlers, drunkards and gamblers come to a bad end.

(2) Minor—C is an idler, drunkard and gambler; hence, (3) Conclusion: C will come to a bad end.

In ordinary conversation or speech the full syllogism is not stated. Sometimes one premise is suppressed, sometimes both, which the speaker can easily supply if he be a good reasoner. In the above, as the major premise was suppressed, it frequently comes out in the form of "because"; thus, because as a rule, idlers, etc., come to a bad end, so will C.

The lawyer proceeds in the same manner. He (the prosecutor) comes into court with a distinct proposition. If a murder case—*John Doe killed Wm. Roe*; if assault and battery—*Pat Kerlin assaulted Pat Flanagan*; if theft, arson, slander, etc., the same. These are as complete and distinct propositions as are those in geometry, and the methods of proof the same. The witnesses furnish the minor premise with help or hindrance of the lawyers and the jury furnishes the verdict, *i. e.* the conclusion. The defence aims to prove the opposite and by the same method.

Second. The physician takes the analytic, *i. e.*, algebraic method in his diagnosis, and the geometric in his prescription. *Diagnosis*—headache, coated tongue, chills followed by fever.

Conclusion—*Malaria*. Syllogism, geometric : Major—Malaria is cured by quinine. Minor—This is malaria. Conclusion—Hence, quinine.

These methods apply to the affairs of the merchant, the farmer, mechanic, the orator, statesman, philosopher. This so, one or two inferences (in mathematical language, *corollaries*) follow :

1. The high value of mathematics as a means of developing the reasoning faculties.

2. The duty of teachers to show this practical application of mathematical methods in the affairs of life.

Two sequences follow from this :

a. The student would prize the study much more highly, thus stopping the frequent question, "What's the good?"

b. The practical value of mathematics would be greatly enhanced.

In my best judgment the student would receive more practical benefit from the mastery in the methods above, of the elements of algebra and two books in geometry, than from the whole course in these two branches as usually taught. These branches are taught almost solely for discipline ; therefore, let that discipline be *logical*. With the great body of students, they have application in computation ; therefore, let them be so taught as to show their application in the affairs of life.

Teachers, please consider, and if I'm in error, let me know that the truth may be helped.

A further corollary, namely, it ought to go without saying that every teacher of higher mathematics ought to be well acquainted with the rules and principles of logic.

GEORGE W. HOSS.

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PROPOSED CHANGE IN TEACHERS' LICENSE LAW.

[The following is a chapter in Superintendent Geetings forthcoming report.]

In my recommendations to the Legislature two years ago, I spoke of the necessity for legislation bearing on the licensing of teachers. Since submitting those recommendations I have given a great deal of thought to this very important question, and am still strongly of the opinion that our license law should be modi-

fied. The State does not receive returns from the present system of examinations proportionate with the outlay of labor and expense accompanying the administration of the law. The plan which we presented two years ago and which I heartily endorse, is as follows :

All manuscripts for licenses to teach, of whatsoever character, should be submitted to the State Superintendent of Public Instruction for examination. The licenses when issued should be valid in any part of the State and should be issued for 12, 24, 36 and 60 months. The first three grades should entitle the holder to teach in the common school branches, and the last—that for 60 months—should entitle the holder to teach in the non-commissioned high schools of the State, in addition to the common school branches.

The examining board should consist of from three to seven members, appointed by the State Superintendent of Public Instruction. It shall be the duty of this Board to select competent persons to examine the manuscripts after they have been received by the State Superintendent of Public Instruction. It would be necessary for the County Superintendent to conduct the examinations as at present. The manuscripts should be numbered and forwarded to the State Superintendent of Public Instruction for gradation immediately after the examination. The names of the applicants should not appear on the manuscripts at all. The reports of these examinations should be sent by the State Superintendent of Public Instruction to the County Superintendents by numbers, and after the receipt of same the superintendents will fill in the names of the applicants corresponding to the numbers, and forward the reports to the proper persons. By such a plan the examinations would be absolutely fair and uniform throughout the State.

In issuing license, the teacher's "school-room success" should count one-half. In other words, if the teacher's success in the school-room is perfect, she should be entitled to license if her scholarship should be a little low. This item should be determined by the county and city superintendents, the former grading the teachers in the country and town schools, and the latter grading the teachers in the city schools.

There are many reasons why some such plan as the above should be enacted into a law. There are now, of necessity,

ninety-two standards for grading manuscripts for license, which makes it impossible to secure a uniform standard of scholarship. This, however, is not the worst feature of our present law. The conditions at one time in Indiana were such that a rigid examination to test the scholarship of the applicant to teach was necessary. This took all the time of the examiner and takes almost all the time of the County Superintendent now. As suggested above, the teacher's success in teaching and managing her school should enter very largely into the estimate of her qualifications as teacher. This feature of the teacher's work should be examined and reported by the local County Superintendent. The scholarship should be passed upon by a different examining power and the combination of the two grades should be the basis of issuance of license.

This plan would make professional supervision of schools possible. It is not possible now, as the County Superintendent is compelled to give most of his time to the very hard work of examining manuscripts and to office work, and as a result has very little opportunity to perform the true functions of a superintendent.

Since a large number of the teachers in the country schools every year are inexperienced, and the number of trained teachers is very small, helpful supervision is one of the vital needs. With this large number of inexperienced teachers every year and the very small number of trained teachers the County Superintendent must have an opportunity for considering the needs of his teachers and schools. He must, by much study and preparation, have a thorough knowledge of the school work in his county and educational work in general. And in order that he may accomplish all that is required of a professional educator he must be relieved of the great amount of work made necessary by examining papers and the great amount of clerical work. The Superintendent should devote all of his time and energies to the inspection of schools while they are in session, and while making his visits he should give his best thought to the consideration of the teacher's ability and "school-room success." These estimates should be made a matter of record for future use by the County Superintendent in filling out licenses.

This system would accommodate a very large number of teachers each year in that the licenses issued would be good in

any county or school in the State during their validity. There are a great many teachers constantly going from one county to another to teach. This system of examinations would remove the necessity for an examination in every county in which the candidate makes application for school.

Such a law would enable the County Superintendent to become in reality, as well as in name, a supervising officer, and not an office clerk. He would have both the opportunity and pleasure of studying the needs of his schools and the time in which to execute his plans for improvement. He should not be compelled to examine a great many manuscripts each month, which can be done with more uniformity by the State, but should be given the opportunity of performing the many important duties devolving upon this officer.

I earnestly urge upon you the importance of a careful consideration of the above recommendation.

PRIMARY DEPARTMENT.

This department is conducted by Miss Anna Brochhausen, Critic Teacher in the Indianapolis Schools.

FRACTIONS IN THE FIRST AND SECOND YEARS.

The teachers who are interested in this article are directed to the article on "An Interpretation of Speer" in the April number of 1898, also to the articles on Primary Arithmetic in the May and June issues.

It would be hard to tell just when the first number concepts begin. Number is measurement. As soon as the child begins to adjust his activities toward the accomplishment of some end, the primary step in mathematics is taken.

Most children, on entering school, have an idea of what is meant by one, two, three, four, etc. Though they can count quite high, it must not be supposed from that fact that they have the concepts expressed by these relations. A child, too, on entering school, will quite readily say that one thing is about half of another. No doubt, every child before the age of six has at some time or other been told to give a brother, sister or playmate half of an apple or piece of candy. He did it by cutting the apple into two parts, showing by this act that he knew what a

half is. The teacher must bear in mind that all this is very indefinite, and not truly mathematical.

When the child enters school the teacher begins the systematic development of mathematical ideas. These should be begun with the study of form. Only after the child is able to recognize general relations in form, can he make the definite discriminations expressed by exact relations. This observation work should form the basis of mathematical teaching in the first year.

Having been asked: When should the teaching of fractions be begun, and how far should it be carried out? I would say that direct work in fractions ought not to be given to first year children. Great caution should also be exercised in dealing with them in an abstract manner in the second year. Much work should be done with objects. A box of Speer blocks is a great help in this work. Here the child sees the relations $\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{4}$, etc., in cylindrical forms, square and triangular prism forms, etc. The integer and the fraction, e. g.: 2, $\frac{1}{2}$, are grasped as a relation.

Some have not these blocks, however, and some are so situated that they must teach arithmetic in the first year. To these I suggest a folding lesson similar to the following for beginning the direct work with fractions:

Pass several square sheets of paper to each child.

Teacher: Take one of these sheets of paper and place it directly in front of you. You are to divide this sheet of paper between yourself and one of your classmates, so that the two pieces will be exactly alike. Into how many parts must you cut it? (*Ans. 2.*) Carefully fold the lower edge to the top edge. Unfold. Into how many parts does this fold divide your sheet of paper? How are these parts? (or, What kind of parts are these?) Tear your paper. Bring me one of your pieces. How much of your whole piece did you bring me? What is one half? Suggestive questions:

- a. Into how many parts did you tear your paper?
- b. How many of these parts did you bring me?
- c. It is *one* of how many parts?
- d. It is *one* of what kind of parts?

Then what is $\frac{1}{2}$? (Writes as she speaks.) How many halves are there in this sheet of paper? Putting the two halves together; what will it make? How many halves in any whole? How do you write one-half? How do we read this: ($\frac{1}{2}$)?

Take another piece of paper. Fold it into halves. Leaving this folded, place it so that the shorter edge is toward you. Again fold the lower edge to the top edge. Unfold. Into how many parts does this divide our sheet of paper? How are all these parts? Crease the first fold sharply and tear into halves. Now crease the folds on each of the halves and tear the halves into halves. Into how many equal parts does this divide the whole sheet of paper? Bring me one of your pieces. Does any one know what one of these parts is called? (If not, teacher writes $\frac{1}{4}$, one fourth, on the board.) What is $\frac{1}{4}$?

How do we read this: ($\frac{1}{2}$)?

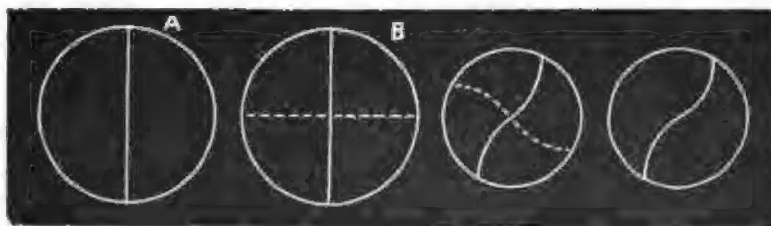
What do we mean by one-half?

How do we read this: ($\frac{1}{4}$)?

What do we mean by one-fourth?

Into how many parts did we divide the paper first, before dividing it into fourths? How many fourths are there in a half? Prove it. (The children place two of the fourths on a half.) What is the difference between $\frac{1}{4}$ and $\frac{1}{2}$ of anything? Then $\frac{1}{4} = ?$ (Answer, equals $\frac{1}{2}$.) (Teacher writes $\frac{1}{2} = \frac{2}{4}$, $\frac{1}{4} = \frac{1}{2}$.) Bring me (teacher writes) $\frac{3}{4}$ of your piece of paper. Now you may bring me another fourth. How many fourths have you brought me? (Teacher writes $\frac{1}{4}$ as child answers.) Have you any more? Then how many fourths were in your piece of paper? So $\frac{1}{4} = ?$ (Teacher writes as child answers $\frac{1}{4} = 1$ whole.) What have we learned to-day? To-morrow we will see if this is always true.

This is enough for one day's lesson. The next day the teacher should have various sizes of circles on the board. They may be divided thus:



Oblongs, and lines also, divided into halves and fourths may be on the board. (If the class was slow in grasping the first day's work, a second folding lesson should be given the following

day instead of this board work, using oblong instead of square sheets of paper. The same sized sheet should not always be used, for fear the child has the idea that a fixed form is given the name $\frac{1}{2}$, which mistake has happened.)

In connection with the circles, such questions as the following may be asked :

Into how many parts is A divided? How are these parts to each other? What is one of these parts called? Place your hand over the half. Show me the other half. (Teacher writes $\frac{1}{2}$ in each division.) Place your hand over the part of B that is equal to that part of A. Into how many parts is B divided? etc.

Do you see anything else in the room that shows the same relation as the whole to the half?

In this connection the teacher should teach number of pints in a quart. Some problems should also be connected with this work. The children may not be mature enough to give the result numerically, but that solution which shows that they grasp the relation 2, $\frac{1}{2}$ is within the child's power at this stage; e. g. such problems as: When $\frac{1}{2}$ a ton of coal costs \$2, how many \$2 will you need for the whole ton? A quart of cream costs 10c. What part of 10c do you need for a pint of cream? A quarter is $\frac{1}{4}$ of a dollar. How many quarters in $\frac{3}{4}$ of a dollar?

[TO BE CONTINUED.]

GEOGRAPHY. III.

What were we to hear to-day? (What snow is.) From where does the snow come? What are clouds? What caused the moisture to rise in the air? How does the ground feel on a sunny day? When does it cool again? What becomes of the moisture which was in the warm air of the day? What is found on the grass the next morning? In which season of the year do we have most dew? Why? (Children should answer these questions for themselves. The daily observation work should aid in their solution.

In this same connection the question, In what season of the year are the days warm and the nights cool? may be asked.

Then in what season do we find most dew? If the nights are cold, what is then found on the housetops and on the grass in the morning? Like what does frost look?

Where else do we find frost? (Window panes.) Who can explain this?

Suggestive questions:

How is the air in our rooms?

The winter nights ———? (Cold.)

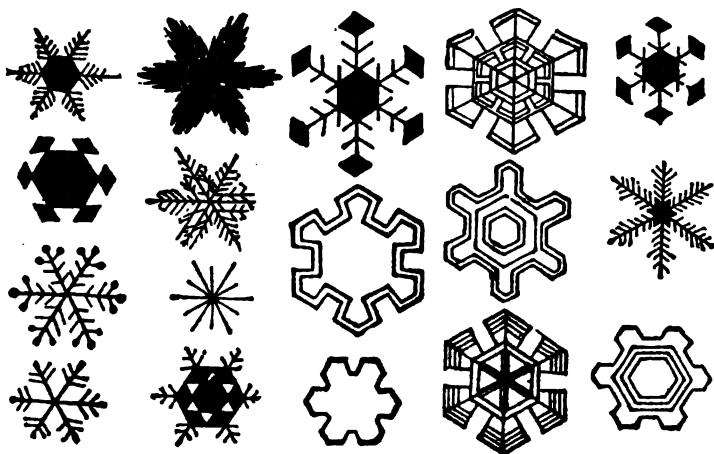
The window glass being near the outside air is ———?

The moisture from the air near the glass is ———?

Having settled, what happens to it then?

After a very cold night how is the frost on the window panes? (Very thick.)

Nearly every child will be anxious to tell of his having scraped this frost down. Let him explain why it is thick. Like what does it look? Tell what you know about snow. How many points has a snowflake? As we looked closely at a snowflake the other day what did we notice about it? (While in the yard attention was called to the minute particles of which a snowflake is composed.) What did we prove was in the air? We



FORMS OF SNOW CRYSTALS.

call this moisture ———? (Vapor.) What causes this vapor to fall as rain? Now if before uniting into rain-drops these very tiny drops of moisture should pass through cold air, what will happen to them? (Freeze.) We say they are frozen into *crystals* (flash method). Therefore snow is *crystallized* (flash method) moisture. What is the snowflake? ("Snow is the small particles of water frozen before they unite into drops.")—

Locke: Elements of Nat. Phil. "Snow is aqueous particles frozen in their descent through the atmosphere into separate crystals, afterward uniting into assemblages of crystals, called snowflakes.")

In connection with the study of moisture in the air, experiments with boiling water should not be omitted. Place a kettle of water over an alcohol lamp, or over a fire. Soon a cloud is seen to rise from the surface of the water, or to issue from the spout. Place a cold spoon or plate in this cloud. Notice result. When quite moist, heat the spoon or plate. Water again disappears.

When the water boils let the child observe that the cloud is not close to the mouth of the spout. Try the experiment of holding the spoon in the cloud as well as in the invisible steam.

If not too large a quantity of water is put into the kettle, it will all evaporate during the course of the lesson. The fact that the water "boils away" will have an interesting meaning to the child when noticed in this connection.

Water should also be placed out-of-doors in a pan or glass on a very cold day, so that the children may observe the ice form on the surface of the water.

Work of this kind can scarcely be over-estimated. Connected as it is with the immediate environment of the child, it makes him keenly observant, alive to that which is going on about him.

There is greater development in his being brought face to face with questions which he must answer for himself, than there is in pouring over the pages of a book. Nor must the inner joy arising from the successful solution be overlooked. Once felt, a child desires to feel it again and the striving and willing powers are the more easily aroused when another task presents itself.

A queer little boy, who had been at school
And was up to all sorts of tricks,
Discovered that 9, when upside down,
Would pass for the figure 6.

So when asked his age by a good old dame,
The comical youngster said:
"I'm nine when I stand on my feet like this,
But six when I stand on my head."

LEND A HAND.

(This department is conducted by Mrs. E. E. Olcott.)

*"Look up and not down,
Look forward and not back,
Look out and not in;
Lend a hand."*

A DEVIL'S RACE HORSE.

"Anybody know what that critter is?" asked the Business Man, pointing to an insect on a rosebush near the piazza.

"That," cried the very Amateur Scientist, in a tone of delight, "is a praying mantis!"

"I never saw one before," remarked the Doctor-from-Boston.

"I don't see this one," said the Primary Teacher, peering among the leaves.

The Business Man promptly seized the unprepossessing insect and placed it on the railing in plain view.

"Why, the children call that the *devil's race-horse*," the Primary Teacher exclaimed, "and they say it is poisonous!"

"Contrast in names, certainly," commented the Doctor-from-Boston, "but perhaps it deserves both by praying when it's not running the devil's races."

"I don't believe it's poisonous," asserted the very Amateur Scientist, "because a long time ago I read an article in the *Youth's Companion* about three of them that were kept on some house plants. The male was named Peter, and one of his wives, Maria. The wives spent most of their time in waiting on Peter, but he ungratefully killed and ate the wife whose name I've forgotten. Long afterward, his health failed, and he died in spite of Maria's devotion. Then, it seems to me, that she grieved herself to death. I'll keep this mantis, so I will, and do some observing on my own account. I have seen several green ones, but this one is a grayish-brown. I wonder if they turn brown in the fall."

"What will you feed your specimen?" inquired the Primary Teacher.

"Well, I fed clover, dandelion, and plantain leaves to the caterpillars, and ivy leaves to the great green "worm" that I captured on the ivy vine, so—."

"You will give rose leaves to the devil's race-horse?" It's a beauty (?) to live upon roses," commented the Primary Teacher. "It should be called the Evil Fairy of the Rosebush; such an uncanny looking thing might weave spells; see it wave its hand and solemnly sway to and fro as if foretelling woe and sorrow."

"It is uncommonly *knowing* looking," said the Doctor-from-Boston. "It seems able to tip its head at any angle, and turns it so far around that it suggests Paddy's owl. I'll try it with this leaf; perhaps it will twist its comical head off!"

But the mantis refused to commit suicide.

"It is a true insect," said the Amateur Scientist, "its body is in three parts, and it has six legs."

"I should say four legs and two *arms*," suggested the Primary Teacher. "It has cruel thorns on each arm, and both of them and all of its legs are tipped with briars."

"Can't we have a closer look through a magnifying glass," proposed the Doctor-from-Boston.

The lens from an opera glass was made to serve.

"It is certainly *knowing looking*," repeated the Doctor-from-Boston, "it poises its head as if to suggest 'a tale I could unfold.' There! it is washing its face like a cat. If those knobs are eyes, they are not sensitive, judging from the way it rakes those spinous arms over them."

"It seems that the devil's horses curry themselves," remarked the Business Man, returning the lens to the Amateur Scientist, who took a second look.

"Why, it has fingers, four of them, round its mouth—are they mandibles?—and a yellow tongue, or two tongues; it seems split in the middle. Its head is a triangle, with two big knobs of eyes on the two upper corners, and a wicked looking mouth at the lower corner, and two hairs—I suppose they are antennæ—sprouting from the middle of its forehead. One of the antennæ is only half as long as the other—been broken off probably—I wonder if it will grow again. Its head is covered with overlapping plates."

Very deliberately the mantis made its toilet, thoroughly it rubbed every part of its head, even under its chin; with its arm it drew its antennæ down to its mouth, and went over them carefully; then with one arm or the other, it seized each of its feet,

drew them to its mouth, and seemed to lick them. Its toilet complete, it "folded its hands in prayer."

The chilly breeze drove the party from the piazza, where they had been enjoying the brief warmth of a late October Sunday afternoon.

The Amateur Scientist triumphantly bore the mantis indoors upon a spray from the rosebush.

"I wish I had that *Youth's Companion*," she said earnestly, "I'm thirsting for information about the mantis."

"Why not try the encyclopedia," proposed the Business Man.

"That's business-like," came approvingly from the Doctor-from-Boston.

Encyclopedia, dictionary, and small zoology were brought forth, and, as people usually do, they searched in books for the secrets of nature.

"Mantis," the Amateur Scientist began to read, "a linnaean genus of orthopterous insects—."

"What is orthopterous?" asked the Primary Teacher.

"Straight-winged, like grasshoppers," volunteered the Doctor-from-Boston.

"The mantidæ have a narrow, compressed, elongated abdomen," continued the Amateur Scientist, "and a long thorax, which consists almost entirely of the first segment. The head is triangular, with large eyes, three stemmatic eyes, and rather long, bristle-like antennae. The wings fold in a fan-like manner, and the wing covers are long, narrow and thin. The second and third pair of legs are long and slender, and are used only for locomotion; the first pair are chiefly used as weapons of combat, and instruments of prehension, and have the *coxa* unusually long and large; the *femur* also long and large, and capable of closing on the *coxa* so that the sharp edges cut like a pair of scissors."

"Doesn't the description fit pretty well," queried the Amateur Scientist, "the thorax is certainly long, though the abdomen doesn't seem narrow nor compressed; the bristle-like antennae, triangular head and two large eyes, are as described, but those three stemmatic eyes must be microscopic or missing. The legs correspond to description, especially the first pair, arms we call them. The *coxa* must be the second division, and the *femur* the third—at least they fold together—this mantis has spines or thorns, instead of sharp edges on its arms."

"The mantidae feed on other insects," she read, "and remain long fixed in one position, moving their forelegs in the air to catch prey, which has led to a superstitious regard for them as *praying insects*, and to many foolish notions and legends concerning them. The mantidae not only lie in wait for prey, but move about in quest of it, advancing stealthily on the victim. They are all of very pugnacious disposition, the combat usually terminating in the decapitation of one of the combatants; and the victor enjoys his triumph in eating the vanquished. In China, and some other parts of the east, these insects are kept in cages, and set to fight with each other for the amusement of beholders."

"Then they do not subsist on rosebuds!" said the Primary Teacher. "You will have to provide something more substantial than leaves for your specimen."

"I might have known they ate insects," admitted the Amateur Scientist, "because that mantis named Peter ate his wife."

"What shall you name this one?" asked the Doctor-from-Boston.

"I don't know whether it is entitled to the name Peter or Maria, so I shall seize both horns of the dilemma, and christen it Peter-Maria."

"The dictionary says: '*Phosmo-mantis Carolina* is the common mantis of the United States, called also Johnny cock-horse, rear-horse, praying mantis and soothsayer,'" read the Business Man, "there are names enough for you."

"But Peter-Maria is so much more personal," said the Amateur Scientist, gazing intently at the mantis, which waved its warning hand and suddenly jumped straight at her shoulder.

With a feminine shriek, she threw the rose spray to the floor. The Business Man gallantly captured the mantis, and Peter-Maria was promptly shut up in a box, which was unfortunately too shallow to allow him to pray in peace.

The next morning the Business Man went to his office, and the Primary Teacher to school, but the Doctor-from-Boston and the Amateur Scientist were visitors, and free to study the mantis.

"I have two flies," announced the Amateur Scientist, "let's give Peter-Maria some breakfast."

When the lid was removed, the mantis sprang from the box and began swaying to and fro, in that curious characteristic way. When placed under a glass jar, it seemed greatly disturbed,

trying distractedly to climb the smooth sides, falling and sprawling about, the personification of awkwardness.

The flies were alive and lively, and the first one promptly escaped before the Amateur Scientist could slip it under the jar. The Doctor-from-Boston had better luck, and got the second safely in.

But Peter-Maria had no eyes for flies; he was struggling to climb those smooth walls. A twig was slipped under the jar, and the fly obligingly lighted on it and crawled about, almost under Peter-Maria's nose.

"Let's slip the twig under his feet, and perhaps he will fairly stumble on the fly," proposed the Amateur Scientist.

Alas! the fly took base advantage of the adjusting of the twig, and escaped!

After a quarter of an hour, the Amateur Scientist returned with two more flies. The Doctor-from-Boston took one by the wing, but it slipped from his fingers and sailed away!

"Well," said the Amateur Scientist decided, disabling the remaining fly, "that is the *last* one that shall escape!"

Peter-Maria was on all-fours—or all-sixes—getting his breath when the fourth fly was placed invitingly near. He perked his head on one side, and then pounced upon the victim; when he reared up, the fly was held fast upon the "thorns" of one "folded arm." He began greedily devouring his prey.

"Well, if it isn't the *oddest looking* creature," declared the Doctor-from-Boston. "It is so monkey-like; it holds its food as a squirrel does a nut. When I was a little boy, I used to recite:

"The squirrel is a pretty bird,
And wears a bushy tail;
It likes to steal my gran'ther's corn,
And eat it on a rail.

"This mantis is a pretty bird, (?) and a hungry one, too; it hasn't left an atom of that fly; wings, legs, and all, have disappeared."

When the glass prison was removed, Peter-Maria made his toilet carefully, and then assumed an attitude of prayer, remaining in that position for hours.

"I should like to examine its wings," said the Doctor-from-Boston, "a few drops of chloroform would bring a painless death."

"But I don't want to *murder* Peter-Maria," objected the Amateur Scientist. "I want to study his habits. What does he eat? how does he get it? What did he come from, and what will he turn into? To be sure, the zoology says that the metamorphosis is incomplete, but I'd like to know if this specimen will live all winter, if fed and kept warm."

As the mantis showed little disposition to wander and a great dislike for the glass house, it was left upon a small table for the rest of the day. After the lamps were lighted, the Primary Teacher announced "Peter-Maria had disappeared."

Then the Amateur Scientist played "Hunt the Mantis," as children hunt the thimble, finally discovering him upon a rug, in imminent danger of being crushed. He was again shut up in the shallow box, and there remained until the Amateur Scientist arrived at her home at noon the next day. When the lid was removed, Peter-Maria did not jump out, only a movement of the triangular head showed him still alive.

A hat-pin was slipped under his arms, and he was lifted to a table and offered a fly.

He took it weakly, and ate languidly.

"Does the funny bug drink water?" asked a five-year-old, with interest.

"We'll see!" exclaimed the Amateur Scientist, offering Peter-Maria the drops of water adhering to a hat-pin. He drank eagerly, then emptied a very tiny toy teaspoon, and even after that pressed his mouth to a damp spot on the table.

"Peter-Maria, you will drink yourself to death; try another fly," insisted the Amateur Scientist.

The second fly was eaten with a relish and Peter-Maria seemed greatly refreshed. He spent the whole afternoon at his prayers.

At lamp-light he grew restless, and seemed filled with an unconquerable ambition to climb a student's lamp. Bruce's spider has been praised for trying seven times to attach its web, but after the tenth failure Peter-Maria was as eager as ever. Night after night it was the same thing; he was never known to stop until one of two things happened: either in one of his numerous falls he rolled over so that when he scrambled to his feet he faced away from the lamp, in which case he sedately marched off and made his toilet, or else the Amateur Scientist placed a small

branch against the lamp, and when he had climbed upon that, bore him away.

"In Peter-Maria's triangular head there isn't even a small corner for the word fail," proudly said the Amateur Scientist.

"He merely illustrates the difference between intelligent perseverance and sheer obstinacy," observed the Professor. "Peter-Maria is pig-headed instead of persevering!"

Once settled, the mantis seemed to remain without change of position all night, but he persisted in selecting a place for himself. For some time, the branch on which he usually perched, was placed at night upon a small wall-pocket. The Amateur Scientist wished him to remain on the branch, but he *wouldn't*, and unless she watched until he had settled himself, she must, in the morning, play "Hunt the Mantis," finding him at the top or the bottom, inside or outside, or even behind the wall-pocket.

The November weather grew colder, and Peter-Maria was placed upon a warm mantel. Here he perched upon different objects, several times hanging upon the side of a folding mirror, and placidly gazing at himself all night. Sometimes he returned voluntarily to his leafy branch. The Professor, without a tremor, would allow Peter-Maria to creep upon his hand, but the Amateur Scientist merely confessed to a weak prejudice, and when those uncanny arms clung to her finger, she felt like flinging their owner away. Hence, a small, leafy branch, upon which Peter-Maria would readily climb, was ever at hand.

He ate flies, mosquitoes, gnats, small spiders and ants; also, bits of fresh, raw meat, the size of a pin head. He daintily drank drops of water from a hat-pin, or a toy teaspoon, or even, if very thirsty or sluggish, from a wee saucer, held to his mouth. His food was usually presented to him on the point of a hat-pin. Generally, he would seize it at once; sometimes, after flinging it away several times, he would finally pounce upon it, angrily, and eat it, as if for spite! His strength was amazing. He frequently held an ordinary pin in one arm, and ate a fly from it. Once, with one arm, he lifted a match, and threw it away. With either his head or arm he could throw a fly several inches. He could support his weight, which was considerable, upon one arm, and could hang by his feet from a hat-pin and wave his arms to and fro.

Under his wing covers were delicate, fairy-like wings, which he never seemed to use, except to break a fall. Those who have

noticed them say that mantises fly about at dusk, which may account for Peter-Maria's restlessness at that hour; also, that there are two kinds—green and grayish-brown.

For awhile Peter-Maria thrived; then the Amateur Scientist noticed that the briary *tip* of one foot was broken off, and that the others looked dry and brittle. Soon all were broken off, even those on his arms, and Peter-Maria was quite a cripple. But he still tried to climb the lamp, carefully made his toilet, and faithfully said his prayers.

One evening he fell from the mantel, evidently because he did not know that he could not hold on as in the palmy days when the hooks on his feet were sharp and flexible. Thereafter, he was kept at night in a small basket.

The latest report from the Amateur Scientist says: "I fear Peter-Maria's mandibles are drying up too. He has refused food for several days; he does not sit up pert and straight now, but leans on his elbows often, with his head against his arm, in an odd, pathetic way."

So it is safe to predict that ere long, five-year-old may conduct a funeral, with the dolls and the Amateur Scientist as mourners.

Perhaps Peter-Maria's mission is to awaken in the hearts of those who read this bit of his history, a *kindly* interest in even so unprepossessing an insect as a devil's race-horse.

The Young Farmer, looking at Peter-Maria, said: "I always kill those things!"

"Why?"

"Oh, because they are so ugly!"

The District-school Teacher said: "The pupils brought one of those insects to me this fall, and asked if those knobs are eyes. I said, 'don't know one thing about it, children.'" She wasn't *city bred*!

The State Federation of Women's Clubs of Massachusetts offer a prize of \$10 to the school children of that state for the best practical studies on the value of our common toad. Originality and accurate observation is to be the chief point considered in awarding the prize.

Who can tell whether the praying mantis, like the ugly toad, may not have a claim on our interest, because it destroys our insect foes? The Amateur Scientist would like to know!

DESK WORK.

CHRISTMAS ALPHABET.

A is for apples, so rosy and gay ;
B is for blind-man's buff that we——
C is the —— I'm sure always comes.
D is for dollies, and doggies, and——
E is for evergreens, shining and bright,
F is for fun from morning till——
G is for goodies that always are near.
H is the holiday, best of the——
I is for icicles, all in a row,
J is jingling of bells o'er the——
K is the kiss, 'neath the mistletoe bough,
L is the love, ruling every heart——
M is the mistletoe, hung in the hall,
N is for ——, cracked ready for——
O is for oranges, sure to be nigh,
P is for pop-corn, peanuts and——
Q is the queries for answers complete,
R is for reindeer, so-trusty and——
S is for Santa Claus, every one knows,
T is for tree, where the best of fruit——
U is the uproar of children at play,
V is for voices, in carols——
W the good wishes we send far and wide,
X is the cross where the dear Savior——
Y is the yule-log of old Christmas lays,
Z is the zest for this day of all——

ADA SIMPSON SHERWOOD.

Let the pupils fill the blanks, and afterward show them the list of words :

| | | |
|-------|------|--------|
| play | snow | fleet |
| candy | now | grows |
| drums | nuts | to-day |
| night | all | died |
| year | pie | days |

PROGRAM FOR CHRISTMAS DAY.

[Select a committee of boys and girls to decorate the school-room. The committee should use such material as can readily be found in the neighborhood. Use evergreens if they can be secured, bitter-sweet berries, leaves, grasses and cotton-batting. Place upon the black-board in an artistic manner the following or similar mottoes: "Merry Christmas," "On Earth Peace, Good Will Toward Men," "Behold! I Bring You Good Tidings." Let the "old, old story" that is ever full of tender interest have a prominent place in the thoughts of the children.]

1. READING. The Teacher

Luke II, 8-20; Matt. II, 1-12.

2. FIRST CHRISTMAS ANTHEM.

Teacher.—When was it sung?

School.—"It came upon the midnight clear,
That glorious song of old."

Teacher.—From whom?

School.—"From angels bending near the earth
To touch their harps of gold."

Teacher.—What did they sing?

School.—"Peace to the earth, good will to men,
From heaven's all gracious King."

Teacher.—How was it received?

School.—"The earth in solemn stillness lay,
To hear the angels sing."

Teacher.—Do the angels still come?

School.—"Still through the cloven sky they come,
With peaceful wings unfurled."

Teacher.—Does the song go on?

School.—"And still celestial music floats
O'er all the weary world."

3. RECITATION. To Santa Claus

Dear Santa Claus, come, we've been waiting for you,
Waiting and watching, the whole year through;
We have tried to be gentle, and kind, and true,
To deserve all the gifts we're expecting from you.

My dollie, I hope, will have golden hair,
And a face that is beautiful, soft and fair;
Her eyes must be very bright and blue,
Like a bit of the sky just peeping through.

To my brother I hope you will bring a sled,
So large and strong and painted red;
What fun we will have riding down the hill,
Dear dollie, and I, and brother Will.—*Mary A. McHugh.*

4. RECITATION Christmas Day

Why do bells for Christmas ring?
Why do little children sing?

Once a lovely shining star
Seen by shepherds from afar,
Gently moved until its light
Made a manger's cradle bright.

There a darling baby lay
Pillowed soft upon the hay,
And its mother sang and smiled,
This is Christ, the Holy Child.

Therefore bells for Christmas ring.
Therefore little children sing.—*Eugene Field.*

5. READING By the Teacher

WHERE THE CHRISTMAS TREE GREW.

Long, long ago, there were little pine trees in a forest in Ungarn, and they were very unhappy because they had to stay in the stormy winter, while all the flowers went to sleep till spring, and the birds flew away to the sunny south.

All the little pine trees wept and sighed together till the Wind heard them and carried their voices down to Judea, where the dear Christ-Child lived.

When the Wind told Him the trouble of the little trees He was grieved, for He loved to have all things happy; but "The little pine trees must help something else before they can be helped," said the Christ-Child, for He knew all things.

So the Wind carried the words to the little pine trees, and they began to try to help something. When a great frost came each little tree spread out its branches as far as it could reach, and sheltered the grass and ferns from the bitter cold: and when a great snowstorm came, covering all the ground and trees, the little pine trees called to the poor little snowbirds and said, "Come, little birds we have seeds for you to eat, and our arms shall keep the snow from you."

When the Wind heard this, he flew to Judea again, and told the Christ-Child how the pine trees were helping.

So, when the Christ-Child heard this, He was glad, for He loved all things to be good, and He came Himself to the little pine trees and blessed them. "Dear little pine tree," He said, and touching them with His gentle hand, "You have tried to help others, and you shall have the joy of always making happiness for little children. Every winter, when the frost and snow come, you shall have many beautiful things given you to give away to My little ones for My sake, if they have tried throughout the year to be loving and good."

Then the little pine trees were glad, for they had learned how blessed a thing it is to give happiness.

And that was the way—says the German legend—that the dear Christ-Child gave us Christmas trees. But He does not wish us to think only of the pretty things we get from the tree, and so we may always see at the end of every branch of the Christmas tree a little Cross.—*Sel.*

6. RECITATION.....A Secret

A tall fir whispered in the wood,
 "I'd tell a secret if I could."
 Then all the dry leaves on the ground
 Whisked up and down and all around
 To see if they the news might hear,
 And spread it quickly far and near.

But the tall tree answered not the call;
 It bowed politely, that was all,
 And flung its tassels to the breeze,
 And looked the wisest of all trees,
 But when I came beneath the tree
 It whispered, "Yes, I'll tell it thee."

Then as I rushed in eager haste,
 And threw my arms about its waist,
 I held my breath that I might hear:
 "My child, I'm coming soon to be
 Your very own dear Christmas tree."

—*Mrs. G. M. Howard in Child Garden.*

7. READING.....Christmas Morning

While it was yet dark Elsie got out of bed and dressed herself, Christmas morning. Of course you think she was going to see what was in her stocking. But do children stop to dress for that?

No, she was thinking of something else. She went out to the barn to old Charlie's stall. He was so white she could see him in the gray light of the early morning.

As she spoke to him, he neighed and put his head down to her. Then she patted and stroked him, talking busily all the while, telling him it was Christmas day.

Just how much of it he understood I can't say, but when she got him an armful of sweet, fresh hay, he understood that very well indeed.

Then she went out to Ina, the beautiful Jersey cow, and told her all about it, too, with a bundle of hay to help her understand.

The black kitten was glad to be told anything so pleasant, and Elsie gave her some milk to make her remember it.

I think it was a good way to begin the day.—*Primary Teacher.*

8. RECITATION.....Quite Like a Stocking

"Just as the moon was fading
Amid her misty rings,
And every stocking was stuffed
With childhood's precious things,
Old Kris Kringle looked around
And saw on the elm-tree bough,
High hung, an oriole's nest
Lonely and empty now.

"Quite a stocking," he laughed,
"Hung up there on a tree!
I didn't suppose the birds
Expected a present from me!"
Then old Kris Kringle, who loves
A joke as well as the best,
Dropped a handful of snow-flakes
Into the oriole's empty nest."

—Thomas Bailey Aldrich.

9. ESSAY.....Last Christmas

10. RECITATION.....Stockings or Scales

If I were asked of all things what I most would like to be,
I'd choose to be a mermaid and live below the sea.
How nice, instead of walking, to swim round like little whales,
And to wear, instead of stockings, many shiny pairs of scales,
Which don't need changing every time that nurse says they are wet,
And then to have no shoes that always come untied!—and yet—
And yet, although it must be nice to swim around in scales,
To attend a school of porpoises and play at tag with whales,
To be on friendly speaking terms with jellyfish and eels,
And never to be sent to bed or told I'm late for meals;
Still, when I think of Christmas Eve my resolution fails,
For *what would Santa think if I hung up a pair of scales?*

—St. Nicholas.

11. RECITATION.....Johnnie's Observation on Christmas Eve

Somehow I can't understand
What the teacher said to-day
About the seasons and the way
That the earth is tilted, and
How the days keep getting short—
Short and shorter in the fall—
Till (she said) the winter brought
Us the shortest days of all.

That stumps me—that's what it does !
The shortest days I ever saw
Came this summer, when I was
Camping out at Colton's.
Pshaw ! Talk about those days being long,
Why, they went by like a streak !
Forty of 'em (or I'm wrong)
Wouldn't really make a week.

And now, she says the days are short ;
She made a diagram to show
Just how it was ; I s'pose I ought
To understand—but all I know,
To-morrow holidays begin ;
To-morrow Christmas'll be here ;
But I'm sure to-day has been
The longest day in all the year !
—Charles Love Benjamin, in *St. Nicholas*.

CHRISTMAS THOUGHTS :—

[For separate pupils.]

12. Each year when Christmas eve draws nigh,
Be it the time when you and I
Shall put away all wrong and sin,
And bid the holy Christ-Child in
To bless our merry Christmas.—*Montreal Star*.
13. Something each day—a smile
It is not much to give,
And the little gifts of life
Make sweet the days we live.
The world has weary hearts
That we can bless and cheer.
And a smile for every day
Makes sunshine all the year.—*Geo. Cooper*.
14. I heard the bells on Christmas day
Their old familiar carols play,
And wild and sweet
The words repeat
Of peace on earth, good will to men !
15. Only he who lives a life of his own can help the lives of other men—
Phillips Brooks.

16. Deep mellow bells salute the air,
With benisons sent far and wide;
Good will and joy go everywhere,
Upon the golden Christmas-tide.—*Joel Benton.*
17. Blow, bugles of battle, the marches of peace,
East, west, north and south, let the long quarrels cease;
Sing the song of great joy that the angels began,
Sing of glory to God, and of good will to man.—*Whittier.*
18. Ring Christmas bells!
Say to the earth this is the morn
Whereon our Savior-King is born;
Sing to all men—the bond and free,
The rich, the poor, the high, the low,
The little child that sports in glee,
The aged folks that tottering go—
Proclaim the morn
That Christ is born,
That saveth them and saveth me.—*Eugene Field.*

19. CONCERT RECITATION:—

"Sound over all waters, reach out from all lands,
The chorus of voices, the clapping of hands,
Sing hymns that were sung by the stars of the morn,
Sing songs of the angels when Jesus was born."

20. SONG..... See December JOURNAL for 1897

[For additional material see December JOURNALS of previous years. We still have on hand a few copies of December, 1895, JOURNAL, containing the play entitled, "The Conquest of Santa Claus," which we will send to anyone who wishes it for 10 cents.]

A teacher had been drilling one afternoon on the difference between *taught* and *learned*, before a visitor.

"Now," she said, "I think you have learned your lesson as well as I have taught it to you. Willie, will you give me a sentence with the word 'taught' in it?"

A fair-haired urchin on the front seat spoke up promptly:

"I t'ought it was time for school to let out."

"No, no! Mamie, you may give me an example," she said to a bright girl farther back.

"I t'ought it was time to go home," answered Mamie, with an air as if she had done exactly the right thing.

The visitor smiled.

EDITORIAL.

DECEMBER.

With snow-white hair,
I come, the last of all. This crown of mine
Is the holly; in my hand I bear
The thyrsus, tipped with fragrant cones of pine,
I celebrate the birth of the Divine,

* * * * *

My songs are carols sung at every shrine,
Proclaiming, "Peace on earth, good will to men."

—Longfellow, *The Poet's Calendar*.

How many teachers will forget or neglect to pay for the JOURNAL on or before January 1, 1899? Reader will you be one of the number? *Please don't.*

IT IS ANNOUNCED that State Superintendent-elect Jones has decided to retain the same office force that Mr. Geeting now has employed. F. A. Cotton will be re-appointed chief deputy, and F. D. Hester and J. A. Porter will be retained as clerks. It would be very difficult to improve on this force. Every person who visits the office is kindly treated and business is promptly attended to.

F. L. JONES, superintendent of the Tipton schools, was elected Superintendent of Public Instruction, at the late election. Mr. Jones is a native of Howard county. He has gained his education by close application and hard study, much of it while teaching. He has attended school at the Northern Indiana Normal School at Valparaiso, at Butler University, a term at Chicago University, several terms at Indiana University, from which he graduated last June. Mr. Jones began teaching at the age of sixteen, and besides his experience in the country schools, has taught at Greentown, Kokomo, Noblesville, Indianapolis and Tipton. In all these positions, whether as principal of a ward school, teacher in a high school, or as Superintendent of schools, he has been uniformly successful. Mr. Jones has energy and ability, and his friends predict for him the same success in his new office that has attended him in all the positions he has heretofore filled. THE JOURNAL extends congratulations, and wishes him all the achievements that his most ardent friends predict for him. He will not enter upon his new duties till March 15, 1899.

SUPERINTENDENT ANDREWS is already having serious trouble with the Chicago School Board. *The Chicago Times-Herald* recently devoted over four columns of its valuable space to the "row." Dr. Andrews insisted on his right to nominate certain principals for the night schools, and "the committee" insisted on its right to substitute other persons.

It seems to be a question of superiority: Shall the superintendent have the right to nominate teachers, or shall the committee on teachers exercise

this privilege, as of old? The discussion showed the board pretty evenly divided on the question, with the President of the Board favoring the committees.

It is probable that Dr. Andrews will gain his point, as it is stated that all members of the Board owe their positions to Mayor Harrison, and Mayor Harrison is a believer in "one man power."

A peculiarity of the fight is that the people who are opposing Dr. Andrews are the self-same people who opposed Superintendent Lane, and elected the present incumbent; and the people who stood by Mr. Lane and opposed the election of Dr. Andrews are the ones who are now fighting his battle for him.

Upon reflection this is not at all strange. Those who are opposed to the "spoils system," and are in favor of the superintendent nominating all teachers are the ones who will stand by any superintendent who is doing his duty. They are acting on principle and for the good of the schools.

Dr. Andrews is a strong man and has strong convictions; and further, he has the courage of his convictions.

The time is coming and now is, when all sensible school boards, who place the good of the schools above everything else, leave the selection of teachers to the superintendent, and then hold him responsible for the work done in the schools.

SCHOOL PUNISHMENT.

Do not make threats of punishment in advance. Adapt the punishment to the offense. Do not try to make pupils learn by whipping for unlearned lessons. Never inflict a punishment which is likely to make a pupil feel he ought to resent it. Seek to use the minimum of punishment. Be patient with the shortcomings of your pupils. Do your utmost to prevent faults so as to avoid the necessity of punishment. Punish only for wilful misconduct. Do not reprove those who try but fail. Do not expect perfect order in the school-room. Children are children.—*Raub.*

LAFAYETTE MONUMENT COLLECTION.

The Superintendent of Public Instruction has forwarded \$738.50 to Washington as representing part of the amount collected in the public schools of the State for the Lafayette monument fund. Several of the larger cities have not reported as yet, among them Indianapolis and Evansville. Prominent among the cities contributing were South Bend with \$87.77; Bedford, \$38.23; Anderson, \$35; Goshen, \$24.64; Peru, \$30.80; Madison, \$27.51; Martinsville, \$30; Laporte, \$20. Inasmuch as Indiana has gone into this movement it should do something respectable. For further suggestions see last month's JOURNAL.

COMPULSORY EDUCATION LAW.

State Superintendent Geeting has been collecting facts in regard to the working of the new compulsory school law, and the results are very gratifying. He finds that over 21,000 children have been brought into the schools,

and that most of these remained in the schools longer than the minimum time named by the law, and quite a respectable per cent. of them remained the entire school' year. Very little compulsion has been used. In most instances a warning by the truant officers was sufficient.

In most states such laws have been of little value, for the reason that they are not enforced. The Indiana law has its chief merit in its manner of appointing its truant officers. The officers are nominated by the county and city superintendents and are appointed by the State Superintendent and by the Secretary of the State Board of Charities. This takes the appointment, as far as possible, from political influence. The appointing power has only the interest of the children in view, and the truant officer must do his duty or lose his place.

The law may need some amendments, but the above named feature should not be changed.

STATE SUPERINTENDENT'S REPORT.

State Superintendent Geeting in his forthcoming report to the legislature, proposes certain modifications in the school law tending to make it more effective and better fitted to reach and help the great mass of children and teachers. He recommends that the school term should not be less than *seven months*. The excuse for the short term of school is always a lack of funds, and to do away with this excuse, he recommends an increase of the State levy to sixteen cents on the \$100 and that all local corporations be required to provide for reasonable school terms before being eligible to draw from the state revenue—the law fixing the minimum term to be provided by local corporations. He suggests seven months. To give all children the benefit of the best teaching and also to place them in competition with other children of the same grade and thus induce a spirit of enthusiasm, he recommends that many of the small schools be abandoned in the country districts and that trustees convey pupils to the larger schools with better teachers.

The consolidation of the small district schools with the larger ones would enable the State to establish and maintain high schools in all townships demanding them without additional cost; or if a township did not demand a high school, such consolidation would enable a trustee to pay for such advantages at a neighboring high school out of the special school fund.

Superintendent Geeting recommends certain changes in the law governing teachers' license. The part of the report referring to the subject of licenses is of special interest and is therefore printed in full in the body of this JOURNAL.

It is also recommended that teachers should, as far as possible, have professional training and that certain scholastic qualifications should be required not only of city and town superintendents but of county superintendents, that they may be *leaders* in the work which they have chosen. In connection with this Superintendent Geeting also recommends that the term of office for which a city or town superintendent is elected be lengthened from one, to at least two years.

An extremely valuable chapter in this report is that which considers the selection of a proper site for a school building, and its sanitary construction.

It considers carefully the proper lighting, heating and ventilating of school-rooms, how to secure the best water supply, how the desks should be located to meet the best physical conditions of the pupil, the size and quality of blackboards and pictures an *Ideal School House*. *Mens sana in corpore sano*. We wish that every trustee in the State might be compelled to study this chapter carefully, and pass an examination thereon before going into office.

THE INDIANA STATE BOARD OF EDUCATION.

This is the only State Board in the United States that is wholly *ex-officio*. On general principles *ex-officio* boards are not to be commended, as the members are likely to neglect the work to be done, but this board is an exception. There is perhaps no more efficient board of the kind in the entire country. The places they are chosen to fill demand men of ability and integrity, and they are of necessity experts along the line of their *ex-officio* work. This *ex-officio* feature of the board is specially commendable because by it the board is removed absolutely from the influence of politics.

This board selects the text-books for the entire State and lets contracts worth thousands of dollars. If the board should become a creature of the Governor, people would seek places on it for the money they could get out of it.

In order to harmonize the educational interests of the State and *for the sake of the three higher educational institutions themselves*, the JOURNAL is in favor of the three college presidents going off the board, but it is opposed to any further change and is opposed to any change in the manner of selecting the board.

It is generally conceded that a county superintendent should be on the board. If this is conceded then let the law specify that it shall be the superintendent from the most populous county not already represented on the board. This carries out the *ex-officio* principle and would give as good a superintendent as a Governor would be likely to appoint.

If no other way can be devised let the Governor appoint the other two members for a term of five or six years and let their time expire at different dates, and let the law provide that these members shall be educational men. The JOURNAL can see no objection to a board thus constituted, and it can see no reason why the non-State college people should oppose it.

DO NOT FAIL to read the program of the State Teachers' Association, found on another page. It is one of the best ever provided. It contains several new features—all good ones. The subjects are of general interest, and the persons selected to handle them are eminently competent. The presence of E. Benjamin Andrews, Superintendent of the Chicago schools, is a matter for congratulation.

The Section Programs are all completed and are uniformly good. There should be at least a thousand teachers present to enjoy this annual reunion.

BOOK EVALUATIONS.

CONDUCTED BY CHARITY DYE.

[NOTE.—This department is not a library bulletin, but a teacher's exchange through which the experience of one will reach a number of others.]

(Communications addressed to 1122 Broadway, Indianapolis.)

[NOTE.—The following valuable communication from Mr. W. F. Harding, A. B., can not be otherwise than interesting. We are glad to see a communication of this kind.]

LEWIS AND CLARK'S EXPEDITION.

It must be evident to everyone that the critical tendency of history teaching is attended with the loss of many a romantic story. Everything which can not be proven is rigidly excluded, and as a result there is too often nothing to attract the young mind to the study of history. It is therefore all the more to be deplored that the things which are at the same time romantic and true, even though unconnected with the progress of constitutional development, are not given to the children with greater fulness.

Take, for instance, the expedition of Lewis and Clark. The text-book confines itself, as in accordance with the plan it must, to a brief statement of the facts. The child is told that when Jefferson bought Louisiana he sent Lewis and Clark to explore the Missouri River and descend the Columbia; that it took the better part of three years to make the journey, and that by reaching the mouth of the Columbia they strengthened our claim to the Oregon country.

Now, it is possible, or ought to be, to add to these facts something of interest to the child that will tend to fix in his mind the more important things.

Lewis and Clark kept a continuous diary of their progress, which, in 1814, was published. A new edition was published in 1893 by Francis P. Harper, New York, with the following title: "History of the Expedition Under the Command of Lewis and Clark to the Sources of the Missouri River," etc. This edition is in three large octavo volumes, besides a fourth volume of maps and index. The editor is Elliott Coues, the distinguished scientist, and he has added much valuable matter of his own in the form of notes. The first volume opens with a "Memoir of Meriwether Lewis," written by Thomas Jefferson for the original edition of 1814; to this memoir Dr. Coues adds a discussion of Lewis's untimely death, as to whether it was due to suicide or murder. Then follows a memoir of William Clark and a bibliographical introduction, both by Dr. Coues, after which comes the text of Lewis and Clark, freely accompanied by the editor's explanatory notes.

In the first volume the journal begins with the departure from St. Louis, May 14, 1804, and ends with the arrival at a puzzling fork in the stream, where Maria's River joins the Missouri, in northern Montana. This was June 7, 1805, the previous winter having been spent with the Mandan In-

dians, near the present site of Bismarck, North Dakota. The second volume carries the party over the Rocky Mountains and to the mouth of the Columbia, while the third gives the return to St. Louis, which was reached September 23, 1806.

There is, of course, much matter of no interest, and it would be useless to place before the average boy or girl one of these discouragingly large volumes. But the book, throughout, is crowded with accounts of plants, animals, scenery and Indian life, such as can not fail to attract. It needs only a little judicious selection; and one does not search far without finding even exciting adventure. To give only one extract, almost at random, what could hold a boy's attention more firmly than the following bear story:

"Toward evening (May 14, 1805) the men in the hindmost canoes discovered a large brown bear lying in the open grounds, about 300 paces from the river. Six of them, all good hunters, immediately went to attack him, and concealing themselves by a small eminence, came unperceived within 40 paces of him. Four of the hunters now fired, and each lodged a ball in his body, two of them directly through the lungs. The furious animal sprang up and ran open-mouthed upon them; as he came near the two hunters who had reserved their fire gave him two wounds, one of which, breaking his shoulder, retarded his motion for a moment; but before they could reload he was so near that they were obliged to run to the river, and before they reached it he had almost overtaken them. Two jumped into the canoe, the other four separated, and, concealing themselves in the willows, fired as fast as they could reload. They struck him several times, but instead of weakening the monster each shot seemed only to direct him toward the hunter, till at last he pursued two of them so closely that they threw aside their guns and pouches, and jumped down a perpendicular bank of 20 feet into the river. The bear sprang after them and was within a few feet of the hindmost, when one of the hunters on shore shot him in the head and finally killed him. They dragged him to the shore and found that eight balls had passed through him in different directions. The bear was old and the meat tough, so that they took the skin only, and rejoined us at camp."

It may be said that a bear story is not history. Yet, after all, it not only gives some idea of the conditions of the expedition, but, by introducing Lewis and Clark the hunters, prepares a reception for Lewis and Clark the history makers. In like manner various other descriptions in the book may be utilized with profit.

There is, however, one great objection to all that has been said. Not every library possesses a copy of Lewis and Clark; the work is too expensive. If there were an abridgement, or compilation, or dressing down of the book into smaller compass and cheaper form it would, no doubt, prove very serviceable.

W. F. HARDING.

To teach, to guide, is a holy task, demanding an exemplary life. Whoever, with unclean hands or an unclean soul, dares to enter upon the stern and rigid duties of the teacher, defiles what is pure and corrupts what is chaste by his mere presence.

TOWNSHIP INSTITUTE OUTLINES.

FIFTH INSTITUTE.

SOCIAL ELEMENTS.

CHAPTER XI.

The chapter on The School is a remarkably clear statement of the loftiest conception of the mission of the school. It is an expression of the views of the educators of whom Dr. John Dewey is representative. In this view the school is regarded not as a substitute for the home or church, nor as an organization for making bread-winners merely. Rather it is regarded as an agency specially designed to conserve the social order, the source of social living, the bulwark of social integrity, the medium of social progress. The paramount duty of the school is to fit the individual for living in the community the best life possible with him. It is to make him public-spirited, a good neighbor, progressive, upright, loyal to the best interests of his community, a pillar in the church, successful in business.

To be more explicit, society demands three things of the school:

1. That it develop a strong individual, with perfect balance of faculties, with the power of complete self-control, active, industrious, and with strong personality.

2. That it give knowledge as presented in the "four classes of studies" outlined on pages 243 and 244; (a) Formal studies, (b) Nature study, (c) Study of Man as an individual, (d) Study of men in society.

3. That the school develop the child's social sense; that it lead him to realize and appreciate the close and inevitable interdependence existing between him and all other members of society, the contributions which others make to him and his obligation to reciprocate,—both the fact and necessity of co-operative living.

The author's definition of education as the adaptation of the individual to his environment is correct and helpful in thinking out the problems of organization and method. It must be remembered, however, that man's environment is dual, comprising physical nature and the social order, and it is to this two-fold environment that the individual must be adapted. This requires that the child shall master the forces of nature and society sufficiently well to use them to his own advantage, and that he shall be familiar with the forms in which these forces usually manifest themselves. This requirement gives the ground for the "four classes of studies." The schools have met the requirement fairly well in respect of the first three classes (see page 244, Soc. El.), but are yet weak or wholly deficient in the fourth line of study, "Men in society." True, history is taught in all the schools, but it is a study of wars, dates and outlines largely rather than a study of social forces, viewed as determining the course of social progress. More, it is evident to the thoughtful teacher that no rational study of history is possible without a previous understanding of the social order in which the student lives. The primary function of education, therefore, together with the peculiar "apperceptive masses" required for the real learning of so much of

the subject matter of other lines, requires much greater emphasis of the study of society. It is in this direction that we expect the next advance in school betterment.

The daily life in the school room may be turned to great account in the socialization of the youth. The school may be so organized that the pupils live daily in the same relationships that they must enter in later years. At a very tender age they may learn the necessity of industry, of respecting the rights of private property, of respecting the rights of others, of co-operation, of protecting the weaker members of their small community, of protecting public property and many other of the fundamental laws of community life. They may be made sympathetic, solicitous for the good name of their neighborhood, active in demanding public improvement and order. This is the real function of school government. Regulations should not exist for merely maintaining "order." School government should be educative, should look to the child's future participation in the larger life of the community.

The reader should give special attention to the paragraphs on Specialization. While the school must give general culture, I believe that even in the elementary grades each child should be given a strong, special interest in some line of study in which he becomes, to some extent, an original investigator. It is worth much to the child to be a small authority in some small field. I urge this because of the right mental and moral habits coming from close, exact personal investigation and a truthful representation of what has been seen. The reader should ponder well the sentence from President Elliott, on page 245.

The social welfare also demands a larger study of science and mathematics for other than utilitarian reasons. From the psychological point of view, all studies may be subsumed under two heads: (1) Those studies in which the human element is large, in which the feelings constitute a large factor, which involve human ideals, passions and struggles; studies like literature and history, into which the learner injects himself in the process of learning; (2) those studies like physics, botany and algebra, into which the personal equation can not enter. Now, it is clear at once that it is in the second class of studies that the individual really learns to think logically, dispassionately, without the interference of the tendency to romance. The first class are romantic, as they are generally and necessarily presented to the child mind. The second class are entirely unromantic, purely matter-of-fact. If children are to be given proper balance, they must be provided a larger diet of pure science and pure mathematics. Herein lies the argument for the laboratory in the elementary school.

Dr. Henderson's discussion of method is interesting. Much might be said of his first proposition, that the point of departure in framing courses of study and in instruction should be the child's social experience. The author is certainly right, and his suggestion, if properly appreciated and followed out, will simplify our pedagogy very decidedly and at the same time correct many lame members resulting from the effort of the schools to base their work on nature, literature, or on the "culture epochs." Special attention should be given to the illustrations of the utilization of the child's play

impulse in school work. The methods suggested (page 247) are psychological as well as valuable in social training. Impersonation and dramatization are familiar devices of kindergartners and primary teachers. They may be used with equal success in grammar grades and high school. The organization of the school into associations similar to those in the community at large is familiar to the business college. Such organization of the elementary schools is entirely as feasible. Schools may be organized into banking associations, legislatures, the business community, courts, peace tribunals, art committees, leagues for the protection of birds, of school property, of younger children; leagues for securing full attendance at school, street-cleaning societies, anti-cigarette clubs, charitable clubs, committees for promoting school, etc. Much can be made of these small beginnings. They are intensely real to the children, give expression to their better selves, and commit them to desirable lines of action. It is through such organizations that the school can best realize its function as the agency of social progress.

Among the duties of society to the school the following are paramount:

1. Proper recognition of the immense service of the school.
2. Proper social recognition of teachers.
3. Complete organization of the State school system.
4. Better financial support of the schools.
5. The courtesy of hands off, party-wise and church-wise.
6. Closer co-operation of home and school.

For field work the following are suggested:

1. Investigate the value of the Truancy Law.
2. Discuss the need of more supervision of country schools.
3. Of what value are school libraries in the country schools?
4. To what extent do the parents of the children drawing books from the school library read the same?
5. Investigate the benefits arising from organization of Mothers' Clubs.
6. Study the Indiana School System.
7. Investigate the various teachers' associations, reading circles and other efforts of teachers to improve themselves professionally.
8. In what ways can you extend the work of your school into the homes of your patrons? Reading clubs, debating societies, spelling matches and lecture courses promoted by the school are examples. The "School Extension" movement promises great returns in the future and should be of immediate interest to teachers.

CHAPTER XII.

"Religion is an aspiration after ideal goodness, beauty, and truth." The reader of this chapter must bear in mind the author's thought of religion as "Socialized Idealism." Deep in the human heart is a striving to know God. Knowing God consists in attaining righteousness, experiencing spiritual peace, and understanding the meaning of things. To strive for the ideal is to strive for God, for God is the source of truth, beauty and and goodness. It thus appears that if the effort to attain the ideal is an instinct of the human soul, religion is a psychological necessity. That there

is an impulse toward the ideal the psychologist holds. (For the best discussions of this question see Dr. Harris's *Psychologic Foundations of Education* and Dewey's *Psychology*). If religion is a necessity of the human soul then it follows that (1) religion has existed since the beginning of human life and will exist as long as there is human life; (2) that science will never take the place of religion unless we suppose man to attain to a degree of development beyond which he has no ideals; (3) that all religions are true, that is they are honest efforts to know God and are false only in the sense that they have not completely found Him, a shortcoming which none has escaped. This insight into the nature of the many different faiths ought to illuminate the direction which missionary work should take. It will also indicate in what manner and when the world will live under one faith.

Quite naturally the first religious activities took the form of ancestor worship. The religious institution grew out of the family. The father was god and after his death filial duty required that he be provided with food and drink as when alive, death meaning to them invisibility. Thus the beginning of the sacrificial system. The appearance of the clan made it feasible for the several families to combine in a co-operative scheme in which a special class was set aside for the performance of religious functions. This was also necessary as a condition of peace and unity. Thus the religious agency was the first medium of real social activity, the first truly social institution. This fact has given the priesthood a great preeminence which persists to the present time. The fact of preeminence has been the occasion of great blessings and equally great abuses. By virtue of being a special class and necessarily a privileged one, the priestly class enjoyed the leisure requisite as a condition of advance in culture. Consequently the priests were our first lawgivers, statesmen, educators, scientists, inventors, artists, literateurs, and industrial organizers. Their abuses were largely due to efforts to retain prerogatives to which they were accustomed and which were being threatened by the general advancement which the priesthood had brought about. Of course in many instances the abuses were due to inherent wickedness.

On the other hand religion has received much at the hands of society. In the so-called "warfare" with science religious conceptions have been enlarged. Geology has enlarged the idea of God in time; Astronomy in space; Physics and Chemistry in power and invariableness.

"Social unification is a function of the church." If the world is ever to be brought into real unity it will be through the work of the church. Herein lie great possibilities for the future. The day of the church is not gone; it is only fairly beginning.

Valuable studies may be made as follows:

1. How many and what churches in your community?
2. What is the membership of each? Their combined membership?
3. What is the ratio of the number of church members to the total population?
4. Number of church houses, and their seating capacity.
5. Average weekly attendance upon services.
6. Total annual expenditure for church purposes.

PLATO'S REPUBLIC.

In the last article we discussed Plato's idea of the nature of education and found that he regarded it as a process of growth. The determining factors in the process were seen to be native ability, proper food and exercise for both body and mind, and time for development. Current ideas and ideals determine conduct in both the individual and the State. In this article we wish to consider Plato's psychology and ethics, (or rather his ethics as based upon his psychology) and his test of an educated man.

In the ideal State, three distinct classes were found to exist, viz. : The rulers or philosophers, the warriors and the laborers. Inasmuch as the State is but the institutional expression of the nature of the individual, it logically follows that in man's nature are found three classes of powers. Plato calls them the appetitive, the spirited and the rational faculties. All men possess these faculties in common and the difference between men arises from the difference in strength and in the relative strength of these various faculties.

The appetitive faculty, as its name suggests, has to do with man's appetites and merely animal desires, chief among which are hunger, thirst and sex, "also money-loving because this sort of desires can only be gratified by the help of money." And indeed "if we were to say that the loves and pleasures of this third part of the soul were concerned with gain, we should then be able to fall back on a single class; and might truly describe this part of the soul as loving gain or money." (Compare those other words, "the love of money is the root of all evil.") Plato does not hold that these faculties must be entirely suppressed, he is no cynic or ascetic. The appetites must be allayed and the desires satisfied else the individual and the race would cease to exist and the means for the support of the State would be wanting. He even commends the moderate gratification of these desires on the ground that they are the means to a certain amount of pleasure. But this appetitive faculty is so wild, so passionate, so strong and so unreasoning in its demands that it must be placed under the control of the higher powers which are more characteristic of man as man. Otherwise man is scarcely more than a brute.

The spirited faculty is the executive power of the individual just as the warriors are the executive power of the State. In the lower animals it is the merely animal spirit which makes them efficient in the accomplishment of either defensive or offensive deeds. In man it seems to correspond to the will exercised in the performance of what is seen to be right and according to law. As in the State the warrior class is to serve the commands of the philosophers and not the desires of the laborers, so in the individual this animal spirit or the will is to be the ally of reason in the control of the appetitive faculty. "In the conflict of the soul, spirit is arrayed on the side of rational principle." It is not so necessarily but if it is not so the individual has no hope of becoming a philosopher. He becomes the devotee and ultimately the slave of his lower impulses.

The rational or knowing faculty is that which is peculiarly characteristic of man as man, the other two being shown in common by the lower animals. In this faculty then we may expect to find Plato's greatest interest.

And we are not disappointed for he discusses it at length. Simply stated the rational faculty is that power of the mind which forms judgments. It seeks always to express the truth. It is the intellect, the reason, pure and simple. We would then have the Platonic psychology of the individual simply and completely expressed in the three faculties of appetite, spirit and knowledge.

But really the subject is hardly so simple for in Plato's thought the knowing faculty in its various forms is so intimately connected with his ethics and his metaphysics that the details of the discussion are of considerable importance. Socrates had thought that virtue is dependent upon knowledge and vice is due to ignorance. Plato follows in his master's footsteps and says there can be no true virtue without true knowledge. There are, however, different grades of virtue dependent upon different stages in the process of knowing. There are two general kinds or grades of knowledge, viz.: material and intellectual. Of the first grade there are again two stages, the first being comparable to a knowledge of the shadows of individual material things and the second being a knowledge of these things themselves as known through the senses. But since, according to the Platonic metaphysics, neither shadows nor material things are ultimately real existences, the latter being shadows of the real and the former consequently the shadow of shadows, it follows that knowledge of these grades is unreal and untrustworthy. Of the second general division of knowledge there are also two kinds, the first, a knowledge of the principles underlying the pure abstract sciences, such as arithmetic and geometry. Inasmuch as these sciences have to do with general principles which are universally true, and not with forms of matter, the knowledge of them approaches true knowledge. But the full attainment of this true knowledge is to be found only in the second stage of intellectual vision in which the mind comes to know "ideas" the ultimately real behind all material things and all principles. Thus Plato's psychology is ultimately connected with his metaphysics, that is, with his doctrine of "ideas" as constituting the fundamentally real in all existence.

Upon his psychology are based his ethical ideas also. It may well be questioned whether Plato ever equaled his master, Socrates, in sheer moral earnestness and greatness, but he far surpassed him in philosophic insight and systematic thinking. Socrates was a great teacher but he made no attempt to work his philosophy into a system. Plato did, and with what success, the regard of all succeeding philosophers has shown. Let us proceed to inquire concerning Plato's ethical ideas and their relation to his psychology.

Plato calls temperance, courage, wisdom and justice the four "cardinal virtues." Each of the first three is distinctively characteristic of one element of man's nature, viz.: temperance, of the appetitive part; courage of the spirited part and wisdom of the reason. Justice is the combination of all the others. The just man is the good man, the truly virtuous man. He and he alone fulfills the highest ethical ideal. He it is who is at once the highest type of humanity and the hope of the State as its ruler. Fortunately Plato has drawn his picture in clear outline. "The just man does not permit the several elements within him to meddle with one another, or any of them to

do the work of others, but he sets in order his own inner life and is his own master and at peace with himself. It is doubtful whether philosophy has ever given to the world a truer, nobler moral ideal than that depicted in these few words. If men were true to the impulses within them, giving to each one its proper place, and always subjecting the lower to the higher, what a revolution would be wrought in the human character and human society! The normal appetites and animal impulses would be gratified yet held in check with a firm hand, wealth would be worth less than wisdom or character, truth would be most earnestly sought, men would love one another and God would be honored. Plato's psychology might not pass muster in all its details to-day, neither are his ethical ideals equal to those of the Galilean teacher, but his psychological analysis of human nature is wonderfully keen from a practical point of view, and his highest ethical ideal founded thereon is abundantly worth consideration even in these closing days of the nineteenth century.

As to the comparative advantages of justice and injustice Socrates concludes that since justice is comparable to health and injustice to disease, health being "a natural order and government of one another in the parts of the body" and justice being "a natural order of government of one another in the parts of the soul," while disease and injustice are the opposite of these, it follows that the question concerning the comparative advantage of justice and injustice to the possessor, is ridiculous. From the very nature of the two, justice is to be preferred even though in the same situation injustice might be able to go undiscovered and unpunished. Or using another figure, "To him (*i. e.*, to the supporter of injustice) the supporter of justice makes answer that he ought rather to aim in all he says and does at strengthening the man within him, in order that he may be able to govern the many-headed monster. Like a good husbandman he should be watching and extending the gentle shoots, and preventing the wild ones from growing; making a treaty with the lion-heart, and uniting the several parts with one another and with themselves," for, he continues, "is not the noble that which subjects the beast to the man, or rather the God in man; and the ignoble that which subjects the man to the beast?"

It remains to consider Plato's test of an educated man, of the philosopher, the man who is fitted to become the ruler of the State. This test is not merely one of knowledge or of ability to make one's way in the world. In addition to these and before them there is exacted a character test of the most searching kind. *First*, "we must watch them from their youth upwards and propose deeds for them to perform in which they are most likely to forget or be deceived." *Second*, "there should also be toils and pains and conflicts prescribed for them, in which they will give further proof of the same qualities." *Third*, "we must try them with enchantments * * * and see what will be their behavior; like those who take colts amid noises and cries to see if they are of a timid nature, so must we take our youth amid terrors of some kind, and again press them into pleasures, and try them more thoroughly than gold is tried in the fire, in order to discover whether they are armed against all enchantments, and of a noble bearing always, good guardians of themselves and of the music which they have

learned and retain under all circumstances a rhythmical and harmonious nature, such as will be most serviceable to the man himself and to the State. And he who at every age, as boy and youth, and in mature life, has come out of the trial victorious and pure, shall be appointed a ruler and guardian of the State; he shall be honored in life and death, and shall receive sepulture and other memorials of honor, the greatest that we have to give." "And as he is chosen his opposite is rejected." *Fourth*, "and there is another kind of probation." He "must be exercised also in many kinds of knowledge to see whether the soul will be able to endure the highest of all;" the reference clearly being to a knowledge of "ideas" highest among which is the idea of the good. Plato's philosopher must not only be the wisest of men but he must be the best of men also, patient, persistent, enduring, overcoming,—an ideal abundantly worthy of a fuller realization than has yet been attained.

To recapitulate. 1. The State with its three classes is but the institutional expression of the individual human soul with its three faculties. 2. The three faculties of the soul are the appetitive, the spirited and the rational. 3. Reason is specially characteristic of man and from the exercise of it there result four grades of knowing. 4. Plato's ethical ideas are based upon his psychology and corresponding to the three parts of the soul are the three virtues, temperance, courage and wisdom, with justice as the harmonious concord of all. 5. The just man constitutes the highest ethical ideal. 6. From its nature justice is preferable to injustice. 7. An adequate educational test involves character as well as knowledge.

Earlham College, November, '98.

J. F. BROWN.

HISTORY.

To satisfactorily handle the topics presented in the outline for History in the program for the fifth institute, most teachers will find it necessary to do some reading aside from the usual text books in American History. I venture to suggest one reference each on Spanish and French colonization that can be obtained at moderate cost, and that will certainly be very helpful to any teacher in preparation for history work in the school-room. *Spanish Colonization in the Southwest* is the title of an interesting monograph by Professor Blackman and published by The Johns Hopkins Press, Baltimore, price 50 cents. Of course the great authority on French life in America is Francis Parkman; the latter half of his volume, *The Old Regime in Canada*, Little, Brown & Co., Boston, is a most interesting summary of the institutions of the French colonists. In this article little can be done but offer a few suggestive hints.

No part of the study of American History is more interesting or more helpful to an understanding of the basis of our free institutions than a comparison of the English colonists with the French and Spanish. The latter were first in the field and, before the colony at Jamestown was begun, had already seized and partially colonized large portions of South America and southern North America. Though the French were later in the field yet the activity of their explorers was so great that before the slow-going Eng-

lish climbed the eastern slopes of the Alleghanies they had traced the course of almost every tributary of two great river systems, the St. Lawrence and the Mississippi. To understand the element of growth which enabled the English to push aside their apparently more enterprising rivals is to grasp the essential features of Anglo-American life. The characteristics of the three peoples at the time of colonization must be recalled and held in mind throughout the study,—not only the general characteristics of the French, Spanish, and English, but those of that part of each nation who emigrated to the New World. The English emigrants were chiefly those dissatisfied with conditions at home who were seeking an opportunity to work out a better solution of the problem of life; they were the advance guard of the army of progress. The French and Spanish settlers, on the other hand, were usually sent out by the home government and were in complete harmony with it; not all were worthless, but some seem to have been far from suited to form successful colonies. A Spanish ruler of California once said of the inhabitants sent out from Spain for a town in his province, that their absence "for a couple of centuries, at a distance of a million leagues, would prove beneficial to the province and redound to the service of God and the glory of the king."

Spanish government in America can scarcely be said to have been feudal in its nature, since feudalism left local affairs in the hands of the local lords, while in New Spain all power was in the hands of the general or home government. It partook, rather, of the spirit of centralization which followed the downfall of feudalism in Europe. It offered no chance for the development of a free political life because little was left to the will of the representative of the king and nothing to that of the colonists. Everything was managed, or mismanaged, from Spain and the colonists remained until comparatively recent times in political "leading strings." A few quotations from Professor Blackmar may serve to set this point before us: "The chief officers controlling the provinces were sent out from Spain by appointment, and they carried with them an abundance of legislation which always tended to suppress any tendency toward freedom or self-government." "Everything and everybody were kept in close subjection to the ruling power; legislation was minute and explicit to the smallest shadow of a doubt, while obedience to authority was the great law of being." "More laws were added * * * * from time to time, the Spanish sovereign always giving very explicit instructions to the minutest details of procedure; even so small a matter as sending irons for branding cattle must receive the royal sanction." We could draw the conclusion ourselves that "the colonies were servile, and as far as administration was concerned, they developed but little vital liberty."

Industrial life in New Spain could not be free with such an administration as was in vogue. It partook more of feudal forms than the government; even the ownership of land was not free, estates being granted by the crown with the condition that they were to remain "indivisible and inalienable forever." Labor was not free, though conditions varied greatly. Some of the colonists were Spanish peasants and tilled their own farms, so far as they could be called their own; on some of the larger estates first

granted, the Indians inhabiting the soil were reduced to slavery; Indian slavery was forbidden in later grants, but a form of serfdom was substituted; in the West Indies negro slaves were imported to work the plantations. The mission settlements were more careful to guard the rights of the natives, but Professor Blackmar asserts that an Indian attached to a mission "was politically and economically a slave." And we find on the same authority that "the priests were zealous in the instruction of the Indians in the industries and had given the leading ones more or less independence, but the entire mass of the natives was tending away from independence and self government to a species of slavery."

Mission schools for the education and conversion of the Indians were early established. But these, as well as the schools for the Spanish youth, were subordinated wholly to religious aims, were controlled entirely by the church, and in no sense supplied what we understand to be the office of public education.

The control of the church in educational and industrial lines has already been spoken of; in addition to this it sought, in many of the frontier settlements, to usurp the functions of temporal government. Add the fact that it was constantly under the domination of the home church and it is easy to see that it was the religious spirit of the Middle Ages that emigrated to New Spain rather than that of the era of the Reformation.

The conditions in New France were, in general, similar to those in New Spain. The people were sent out by the French government and were kept in very close subjection to it. There was a formal feudalism but in spirit the government was highly centralized. It has been aptly characterized as feudalism "with its teeth drawn." A few sentences from Parkman put the essential spirit before us: "The spirit of absolutism is everywhere apparent." "Seigneur, censitaire, and citizen were prostrate alike in flat subjection to the royal will." "The whole system of administration centered in the king, who was supposed to direct the whole machine, from its highest functions to its pettiest intervention in private affairs." "As for lesser offices, they were multiplied to satisfy needy restrainers, till lean and starving Canada was covered with official leeches, sucking in famished desperation at her bloodless veins."

The industry of Canada was so completely controlled by the government that it failed to develop to any considerable extent. The result of government interference was far more disastrous than in New Spain, for in Canada the climate and rugged soil refused to respond to half-hearted efforts. Land was usually given out in large tracts known as "seigniories" and these were sub-let to peasants or "habitants." The habitant paid his seignior only a trifling rent, but the fact that he could never own his farm deadened his enterprise. Genuine slavery was rare, but, on the other hand, so was genuinely free labor. Almost the only industry offering free initiative was the fur trade with the Indians, and in spite of the attempts of the government to suppress this in favor of the fur companies, it was the only industry that thrived. All others depended so much on the home government that they never attained sufficient strength to stand alone. Parkman says, "not a new enterprise was set on foot without a petition to the king

to lend a helping hand ; * * * and it was rarely refused." As illustrations of this begging spirit he tells us that a man who had set up a saw mill begged the king to send vessels to carry his lumber to France, and it was done ; another who wished to engage in whale and cod fisheries was supplied with boats, harpooners and cordage ; another fisherman petitioned for two thousand pounds of cod-line and two thousand pounds of one and two-inch rope, which he got ; petitions went back to France for money to build store-houses, for brick-makers, potters and artisans of all kinds, for instructors in industrial arts, and so on in endless variety. We can readily believe that "governors and intendants are so many sturdy beggars for the languishing colony."

With such a population, such an administration, and such industries we could scarcely expect advanced ideas to prevail in education and church government. The schools were controlled by the priests or by nuns, and were made auxiliaries of the church. A college and seminaries were established for the children of the higher classes and industrial schools for the sons of peasants. Of these latter Parkman asserts, "but here, as elsewhere, the real object was religious ;" and he characterizes the whole school system in one expression, "but against all that might rouse the faculties to independent action, the Canadian schools prudently closed their doors." With its schools teaching obedience and suppressing free thought the church must have represented a medieval rather than a modern idea.

Turning to the English colonies we find less romance and showy conquest, but far more real growth. Scott says, "what distinguishes the English colonies from all others is their institutional character." Two things must be kept in mind in comparing the English with the French and Spanish : the nature of the peoples, both as to national characteristics and as to those of the particular classes who came to America ; and the relations of each to the home government. It was shown in a previous article that the English were more independent in all lines of progress than the continental peoples ; we have only to remember the circumstances of the founding of the different English colonies to be convinced that the colonists must have been the most independent of Englishmen. Almost every colony was settled by men who sought greater freedom,—industrial, political, religious, or social.

Such settlers, being almost wholly neglected by the home government, naturally developed free political institutions.

Their industries were not weakened by dependence on aid from the king, nor were thwarted by innumerable regulations. We are sometimes led to believe that the navigation laws mark the English government as the most tyrannical of mothers ; but in comparison with the systems of restraint and monopoly adopted by France and Spain, these laws, with their half-hearted enforcement, appear freedom itself. Adam Smith said of England's restriction of the trade of her colonies, that "though the policy of Great Britain in regard to the trade of her colonies has been dictated by the same mercantile spirit as that of other nations, it has, upon the whole, been less illiberal and oppressive than any of them." Slave labor was common in the southern colonies but had not yet become the basis of southern life as it did

after the invention of the cotton gin. The plantations were all cultivated under the eye and management of the owners, and there was a much larger class of free landed gentry than where land was held under feudal tenure.

The northern colonies established free schools; and by means of private schools and tutors, and patronage of English schools the southern gentlemen gave their children educational advantages above those of similar classes in New Spain and New France. And since many of the settlers fled to the New World for religious freedom their church was based on the most advanced religious ideas of the time.

Thus the English colonists brought with them seeds which took kindly to the hospitable soil of the new continent, and produced vigorous institutions which were independent of those of the mother country for their existence. On the other hand we have seen that the institutions of the French and Spanish colonies were merely detached portions of the parent stock; they contained no principle of growth. In the words of Mr. Scott, "No institutions grew of themselves; what there were of them were like posts stuck in the mud." A conflict between such peoples could have but one result: the weaker, dependent institutions of the French and Spanish gave way to the vigor of the English settlers as readily and as surely as the weaker among animals yield to the stronger. A colony like New France offers but little resistance, for "a structure so hollow needs but a push to overturn it."

Several facts must be taken into account in deciding why there was so much more local spirit among the English than among the French and Spanish settlers. The English people had preserved much more local freedom during the period of centralization which followed the downfall of feudalism than was true on the continent; and the English colonies, as has been said, were peopled by immigrants seeking yet greater freedom. The continental peoples who wandered in search of the freedom it seemed impossible to secure at home, passed by New France and New Spain to locate amid the more genial surroundings of the English colonies,—Huguenots, German Lutherans, Austrian Moravians. Scarcely two English colonies were peopled by settlers animated by a common purpose; and the life forced upon them in their new homes tended to preserve and sometimes to intensify differences. The lack of communication made early union difficult if not impossible; news from the southern colonies reached the north but a few times a year at most. Finally, there was the neglect of the home government. France and Spain held their colonies in a strict and common dependence; their religion, education, industry, in short their whole social system was made to order and from a single model. England left her colonies largely to their own devices; and they very naturally chose separate lines of development. Lecky says of them, "A country where so large a proportion of the inhabitants were recent immigrants, drawn from different nations and professing various creeds; where, owing to the vast extent of territory and the imperfection of the means of communication, they were thrown very slightly in contact with one another, and where the money-making spirit was peculiarly intense, was not likely to produce much patriotism or community of feeling."

But there were influences at work from the very first which slowly but irresistibly forced these separate and sometimes hostile colonies into a Union. Back of all the differences, so apparent on superficial view, there was a basis of common English traditions, language and ideas, which made this Union possible. The danger from savage Indians led to temporary unions; the southern colonies found it convenient to join forces against the Spanish in Florida; the northern colonies drew closer together in their common fear of the French. And when the mother country at last sought to exert authority over her offspring, her first touch upon liberties so long enjoyed as to seem sacred brought forth a united resistance. After independence was secured disunion seemed inevitable; but again common danger, this time from themselves, led to still closer union. Truly our nationality was "wrought from the grinding necessities of a reluctant people."

On the whole the growth of local institutions was the main feature of the period ending with 1789. We have seen that a nation was slowly forming, but it was only in the latter part of the period that its growth overshadowed that of the local life on which it is founded.

Richmond.

N. C. HIERONIMUS.

QUESTIONS AND ANSWERS.

STATE BOARD QUESTIONS USED IN NOVEMBER.

ARITHMETIC.

1. For what does 5 stand in the numbers 15, 516, 1.58, 35,681, 89, 645, 857,293?

(a) The number of units. (b) Hundreds. (c) Tenths. (d) Thousands. (e) Thousandths. (f) Ten-thousands.

2. Multiply 31,643 by 20 % of 30,205, and this product by seven hundred ninety hundredths.

$$31,643 \times \frac{1}{5} \times 30,205 \times 7.90 = 1,510,127,367.7.$$

$$3. \quad 26 - [34 - (2 + 1) - 25 - 6] = ?$$

$$26 - [34 - 3 - 19] = 26 - 12 = 14.$$

4. Express as hundredths and also as per cent.: $\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{4}$, $\frac{1}{5}$, $\frac{1}{6}$, $\frac{1}{8}$, $\frac{1}{10}$, $\frac{1}{12}$, $\frac{1}{15}$, $\frac{1}{20}$, $\frac{1}{25}$, $\frac{1}{30}$, $\frac{1}{40}$, $\frac{1}{50}$, $\frac{1}{60}$, $\frac{1}{75}$, $\frac{1}{100}$.

5. Determine by inspection: $66\frac{2}{3}\%$ of 660; $16\frac{2}{3}\%$ of 720; $44\frac{2}{3}\%$ of 63; $41\frac{2}{3}\%$ of 360; $87\frac{1}{2}\%$ of 160.

(a) 440; (b) 120; (c) 28; (d) 150; (e) 140.

6. How would you teach a child to determine by inspection the least common multiple of such groups of numbers as the following: (a) 12, 18, 24; (b) 25, 60, 90; (c) 7, 42, 168?

(a) Drop 12, because it will divide 24; then, in dealing with 18 and 24, let him eliminate the common factor 6, and use it only once with the re-

maining factors 3 and 4; the product of it and these factors, being the least common multiple of 12, 18, and 24.

(b) By keeping each factor 5 of the 60 and of the 90, we will satisfy the 25; then, by eliminating one of the 6's of the remaining factors, 12 and 18, we get 900 for the least common multiple of 25, 60, and 90.

(c) What 42 will divide, 7 will divide; and what 168 will divide, 42 will divide; hence, 168 is the least common multiple of 7, 42, and 168.

7. *Desiring the use of \$1,969 for 90 days, I execute my note, payable to the bank that advances the sum named, at a discount of 6%. What is the face of the note?*

$\$1 \times \frac{180}{360} \times \frac{360}{360} = \frac{180}{360}$; $\$1 - \frac{180}{360} = \frac{180}{360}$; $1969 \div \frac{180}{360} = 2,000$; hence, the face is \$2,000.

8. *Find the number of shingles needed in shingling a roof 60 feet long, with rafters 24 feet long, the shingles being 18 inches long and 4 inches wide, lying $\frac{1}{2}$ to the weather, the first row being laid double.*

$60 \times 12 \div 4 = 180$, number of shingles to the row; $24 \times 12 \div 6 = 48$, number of rows. To this add 1, as the first row is double; 49 rows @ 180 shingles = 8,820 shingles for one-half the roof, or 17,640 shingles for all.

9. *The surface of a cube is 864 square inches. What is its volume?*

The surface, 864 square inches, is made up of 6 equal faces; hence, the surface of one face is $\frac{1}{6}$ of 864 sq. in. = 144 sq. in.; this face is square, hence, an edge is 12 in., and the volume of the cube = $12 \text{ cu. in.} \times 12 \times 12 = 1,728$ cubic inches.

10. $(.0065)^4 = ? \quad \sqrt[4]{157,464} = ?$

$(.0065)^4 = .0000000017850625. \quad \sqrt[4]{157,464} = 54.$

GRAMMAR.

1. *"If you find many people who are hard and indifferent to you in a world that you consider to be inhospitable and cruel, as often, indeed, happens to a tender hearted, stirring young creature, you will also find there are noble hearts who will look kindly on you, and their help will be precious to you beyond price." Point out and classify as parts of speech all words in the above that connect clauses.*

(a) If—a subordinate conjunction. (b) Who—a relative pronoun. (c) And—a co-ordinate conjunction. (d) As—a conjunctive adverb of manner. (e) Who—a relative pronoun. (f) That—a relative pronoun.

2. *What does each of the following words modify: "Indifferent," "cruel," "there," "precious," "often"?*

(a) "Indifferent" modifies "who." (b) "Cruel" modifies "that." (c) "There" is an expletive. (d) "Precious" modifies "help." (e) "Often" modifies "happens."

3. *Select a verb in the indicative mode; one in the infinitive mode, and one in the subjunctive mode.*

(a) "Consider" is the indicative mood. (b) "To be" is in the infin-

itive mood. (c) "Find," by some, would be in the subjunctive mood; and, by others, in the indicative mood.

4. Give the case and construction of "that"; "creature"; "hearts."

(a) "That" is in the objective case, governed by "consider"; (some would say that it gets its government by being the subject of the infinitive "to be"). (b) "Creature" is the object of "to". (c) "Hearts" is the subject of "are."

5. Classify the following clauses as principal and subordinate, indicating their order of subordination: If you find (line 1); you consider; you will also find; there are hearts; help will be precious.

(a) "If you find" subordinate clause of the first degree. (b) "You consider," subordinate clause of the second degree. (c) "You will also find," principal clause. (d) "There are hearts," subordinate clause of the first degree. (e) "Help will be precious" subordinate clause of the first degree.

6. State the distinction in meaning between; character and reputation; verse and stanza; idle and indolent; pride and vanity.

(a) Character is what a person is; reputation is what he is supposed to be. (b) A verse indicates a smaller division than a stanza, which consists of two or more verses, and ordinarily contains every variation of measure in the poem. (c) Indolent denotes an habitual love of ease, a settled dislike of movement or effort; idle is opposed to busy. A person may be idle when he desires to work. (d) Pride is a high or an excessive esteem of one's self for real or imagined superiority, as rank, wealth, talents, character, etc.; vanity is the love of being admired, praised, exalted, etc., by others.

7. Correct the errors in the following sentences, and give your reasons: (a) She sets by the open window enjoying the scene that lays before her. (b) He raised up. (c) Can I speak to you? (d) Plutarch's "Parallel Lives" are his greatest work.

(a) She sits by the open window enjoying the scene that lies before her. (b) He arose, (*up* is unnecessary and *raised* is transitive). (c) May I speak to you. (*Can* denotes possibility and *may* denotes permission). (d) Plutarch's "Parallel Lives" is his greatest work.

8. (a) Give an example of a clause used as subject of a finite verb. (b) Write a sentence containing a predicate noun used attributively.

(a) That the report is true is evident. (b) John will become secretary.

9. Give briefly the essentials of a course of instruction in language suitable for first and second year pupils.

See State Manual or "Course of Study for City and Town Schools."

10. How should such work selected for fourth and fifth year pupils differ from that intended for first and second?

For the fourth and fifth years there will be more written work and works of a more advanced nature, in keeping with the powers of the pupil.

In these years there will be less study of symbols and more of ideas. (See State Manual or "Course of Study for City and Town Schools.")

HISTORY.

1. *What historical knowledge, if any, should be given prior to placing a text-book in United States History in the hands of the pupil? State reasons for your answer, and state method of giving such instruction if, in your opinion, instruction should be given.*

See pages 76 to 88, inclusive, of State Manual. See pages 38 to 46, inclusive, of "Course of Study for the City and Town Schools of Indiana."

2. *What effect did the American Revolution have upon French politics? How were American politics influenced by the French Revolution?*

France was England's traditional enemy, and was willing, at the first opportunity, to enter into a treaty of alliance with the United States. "The French interest in the American Revolution was not merely due to the opportunity it offered to take vengeance upon England, but also to the fact that here were liberty and equality, and that we seemed to realize their ideals of primitive simplicity and nearness to nature, and the success of the new republic strengthened the belief in the possibility of bringing on in France also such a golden age." The American Revolution was one of the many factors whose combined influence brought about the French Revolution. The French Revolution gave rise in America to two parties: Hamilton and his followers opposed France and sided with England. Jefferson and his supporters sympathized with the French revolutionists.

3. *State the remote and the immediate causes of the battle of Tippecanoe. What were its effects?*

The remote causes were (a) The appropriation of the Indiana lands by the whites; (b) the intrigues of British agents; (c) the speeches of the "Prophet." The immediate cause was the failure of every possible endeavor of Governor Harrison to maintain peace with the Prophet and his followers, and his determination to resort to military measures. He therefore assumed the aggressive and marched to the Prophet's Town. The effects were (a) the breaking up of the power of the Prophet for the time being; and (b) the temporary relief of the frontier settlements from Indian depredations.

4. *What, where, and when was the origin of the Mormon religion? State briefly the history of this movement.*

See Text-Book, pages 249 and 250.

5. *What States have been formed from the Northwest Territory? Give the order of their admission into the Union?*

Ohio, 1803; Indiana, 1816; Illinois, 1818; Michigan, 1837; Wisconsin, 1848.

6. (a) *What places have been capitals of Indiana, as a Territory and as a State?* (b) *When was Indiana admitted to the Union, and who was first Governor of the State?*

(a) Vincennes, the capital of Indiana Territory from 1800 to 1813
Corydon, from 1813 to 1825; since 1825, Indianapolis.

(b) In 1816; Jonathan Jennings.

7. *Make out a list of the principal wars in which our country has been engaged as colonies and as a nation.*

As colonies the chief wars were, King William's, Queen Anne's, King George's, the French and Indian, and the Revolutionary war. As a nation, the chief wars have been the War of 1812, the Mexican War, the Civil War, and the War with Spain.

GEOGRAPHY.

2. *Locate the rainless regions of the world. Why are they rainless?*

See pages 41 and 43, Indiana Complete Geography.

3. *Compare the climate of Oregon with that of the Atlantic States in the same latitude. Account for the difference.*

Oregon receives the benefit of the mild temperature brought by the Japan current, and by the prevailing south-westerly winds. The north and west parts are moist and temperate. The Atlantic States of the same latitude are chilled by the cold shore current flowing from the north, and there are no warm south-westerly winds to temper the climate, which is cold and changeable.

5. *What causes the dense fogs off the coast of Newfoundland? Account for the climate of England.*

(a) See page 35, Indiana Complete Geography. (b) The climate of England is moist, temperate, and more uniform than that of adjacent continental Europe. A great branch of the North Atlantic eddy drifts past the coast of the British Isles and tempers the westerly winds which prevail there.

6. *How many States in the United States? Name the last four admitted, with capitals of each.*

There are forty-five States. The last four admitted were, Washington, February 22, 1889, capital, Olympia; Idaho, July 3, 1890, capital, Boise, Wyoming, July 10, 1890, capital, Cheyenne; Utah, January 4, 1896, capital, Salt Lake City.

7. *When are we nearest the sun? Account for the seemingly peculiar phenomenon in temperature at that time.*

We are nearest the sun about January 1st; but at this time the North Pole is turned away from the sun, and its rays strike very obliquely upon our portion of the earth; and the more obliquely the rays strike, the less heat they bring to each square foot of surface.

READING.

1. *In what sense is reading the establishing of a unity between author and reader?*

In the sense of bringing the thought and feelings of each into the same realm of ideas and images, into the same sphere of life.

2. *Define silent reading.*

Silent reading is the interpretation of the thought without giving vocal expression to the symbols or words.

3. *Define oral reading.*

Oral reading is the interpretation of the thought plus the vocal expression.

4. *Is it true that if one comprehends fully the thought of a selection—is able to read it well silently—he can give proper oral expression to the thought? Give reasons for your answer.*

It is not true; for giving proper oral expression to the thought is an art that requires on the part of the learner much training and practice in order to be able to thus read effectively. Comprehension of thought is essential to good reading but does not insure it.

5. *What are the tests of good oral reading?*

It should have the proper tone, emphasis, and inflection, to indicate the true thought. It should not betray special effort on the part of the reader. The tone of voice should be entirely natural—not forced or affected; and the effect on the listener should be such that he would be wholly absorbed in what is being read and not attracted by the reader himself.

6. *Is it possible to read well orally without understanding the thought? Give reasons.*

To a limited extent, through the power of imitation; but not effectively; for the understanding of the thought is a powerful aid in intensifying, correcting, and adjusting the graces learned by imitation.

7. *Explain what is meant by the word-method. What are its excellencies and its defects?*

The word method begins by teaching words as wholes, as the representatives of things, actions, relations, etc.; it does not teach the alphabet, but leaves the pupils to learn the names of a sufficient number of word-forms to begin reading. It begins with the oral or spoken word, and then introduces to the pupil the printed or written form which represents it. The principle is,—first the idea, illustrated if possible by the object; the action or the relation itself; then the spoken word; and following this, the printed or written form. Its excellencies are evident from the foregoing; its defects are simply its limitations. There are certain groups of words that can be recognized as quickly as single words, there are certain groups of letters especially suitable for word-building and certain letters have sounds sufficiently fixed to teach them along with the word forms. The wise teacher supplements her word-method with these lines of instruction.

SCIENCE OF EDUCATION.

The questions this month are all based on "Plato, The Teacher," and "The Republic," which all teachers have.

MISCELLANY.

INDIANA STATE TEACHERS' ASSOCIATION.

[*Forty-Fifth Annual Session, Plymouth Church, Indianapolis, Ind., December 27, 28, 29, 30, 1898.*]

GENERAL ANNOUNCEMENT.

1. Place of Meeting.—The General Association will meet in Plymouth Church. For the place of meeting for sections, see directory.

2. Headquarters.—The headquarters of the Association will be at the Grand Hotel. Executive Committee's Headquarters, rooms 1 and 2. The Grand Hotel will give a rate of \$2.00 per day to members of the Association where two or more persons occupy the same room.

3. Hotels.—The other hotels will give the usual reductions to members of the Association.

4. Fees.—The initiation fee is one dollar for gentlemen and fifty cents for ladies. The annual fee for members is fifty cents.

Excursion Rates.—All persons who wish to take advantage of excursion rates, must secure a certificate from their home railroad agents. Read the instructions of the railroad secretary.

Piano.—A fine piano will be furnished through the courtesy of D. H. Baldwin & Co.

OFFICERS.

F. M. Stalker, President, Terre Haute.

W. S. Almond, Chairman Executive Committee, Delphi.

J. R. Hart, Permanent Secretary and Treasurer, Lebanon.

Emma B. Shealy, Recording Secretary, Delphi.

Vice-Presidents—C. N. Peak, Princeton; W. H. Hershman, New Albany; C. S. Meek, Terre Haute; J. P. Forest, Butler College; F. L. Jones, Tipton; S. L. Heeter, Converse; A. T. Reid, Winamac.

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DIRECTORY.

General Association Auditorium, Plymouth Church.

Sections:

High School, Lecture Room, Plymouth Church.

English, Room 112, State House.

Classical, Room 15, State House.

Mathematical, Room 112, State House.

History, will meet in June, 1899.

Primary, Room 50, State House.

Child Study, Auditorium, Plymouth Church.

Reading and Elocution, Room 29, State House.

Music, Room 85, State House.

Library Association, Room 85, State House.

County Superintendents, Room 70, State House.

Trustees.

College.

Academy of Science, Agricultural and Horticultural Halls, State House.

GENERAL ASSOCIATION.

TUESDAY, DECEMBER 27th, 8:00 P. M.—Invocation—Rev. C. W. Tinsley, Fletcher Place Church, Indianapolis. Music—"Joyful We Greet" (Tannhauser's March) Wagner—Pupils of the Broadway Colored High School, Madison.

Address of Retiring President—Superintendent R. A. Ogg, Kokomo.

Inaugural Address—Professor F. M. Stalker, Indiana State Normal School.

Music—"Sanctus," Gounod—Pupils of Broadway Colored High School, Madison.

Appointment of Committees and Miscellaneous Business, Adjournment.

WEDNESDAY, DECEMBER 28th, 9:00 A. M.—Invocation—Rev. Thos. J. Villiers, First Baptist Church, Indianapolis. Music—By Music Section.

Symposium :—"The Needs of the Schools of Indiana From the Point of View of a Citizen"—Hon. Charles R. Williams, Indianapolis News.

"A Business Man"—Judge George A. Cardill, New Albany.

"A Teacher"—Miss Frances Benedict, Superintendent Worthington Schools; H. S. Gilham, Principal Lima Public Schools.

"A Trustee"—B. K. Kramer, Fairfield Township, Tippecanoe County; John W. Shuler, Jackson Township, Fountain County.

"A Superintendent"—Lee O. Harris, Hancock County; Will H. Senour, Franklin County.

"A Pupil"—Morley Caldwell, Lebanon High School.

General Discussion. Music—Music Section. Adjournment.

WEDNESDAY, DECEMBER 28th, 2:00 P. M.—Music—Music Section.

"Nature in Our Public Schools"—Dr. John M. Coulter, University of Chicago.

"What is Worth While in Nature Study"—Dr. D. W. Dennis, Earlham College.

"Birds"—Prof. Amos Butler, Secretary of Board of State Charities.

"Rock Study"—George L. Roberts, Superintendent Greensburg Schools.

"Nature Study Crutches"—Prof. Stanley Coulter, Purdue University.

General Discussion. Music—Selected.

WEDNESDAY EVENING, DECEMBER 28th, 8:00 P. M.—Music—Selected.

Amphion Club of Indianapolis, (Male Chorus of 35 voices) Karl Schneider, Director. Announcements. Music—Selected. Amphion Club.

Annual Address—"The Public School System as an Instrumentality of Social Advance"—Dr. E. Benjamin Andrews, Superintendent Chicago Schools, Ex-President Brown University.

Music—Selected—Pupils of Broadway Colored High School, Madison. Adjournment.

Admission to the Evening Session will be by card, which may be obtained from the Permanent Secretary.

THURSDAY, DECEMBER 29th, 9:00 A. M.—Invocation. Music—Music Section.

"Dignity of Fiction"—O. P. Kinsey, Associate Principal Valparaiso Normal School. Music—Selected. Male Quartet, Madison.

"Patriotism"—Admiral George Brown, U. S. N.; Hon. Jas. A. Mount, Governor of Indiana.

"A Word Concerning the Historical Section"—Ellwood W. Kemp, State Normal School.

Music—Music Section. Reports of Committees. Miscellaneous Business. Adjournment.

F. M. STALKER, *President.*

W. S. ALMOND, *Chairman Executive Committee.*

LEBANON, IND., November 18, 1898.

Superintendent W. S. Almond, Chairman Executive Committee, Indiana State Teachers' Association, Delphi, Ind.:

DEAR SIR :—The following are the instructions of the Railroad Secretary :

1. Buy a ticket from your home to Indianapolis and get a certificate from your local agent. If he has no certificates, get a receipt for one full fare to Indianapolis.

2. See that your agent stamps the certificate, signs it, and has you to sign it in his presence.

3. Present your certificate sometime before 9 P. M. on Thursday, (pay your dues or initiation fee) and your certificate will be properly signed and vised by the special agent of the Central Passenger Committee. This will entitle you to a one-third fare in returning to your home over the same route by which you came.

4. The special agent of the Central Passenger Committee will be present two days, Wednesday and Thursday, the 28th and 29th of December.

Respectfully,

JAMES R. HART, *Railroad Secretary.*

HIGH SCHOOL SECTION.

FRIDAY, DECEMBER 30, 9:00 A. M.—1. Paper—"Means of Securing Vitality and Greater Efficiency in English Teaching"—Miss Estelle Corlew, Evansville. Discussion led by Will H. Kelley, Bluffton.

2. Paper—"The High School Boy and How to Make a Man of Him"—Lee L. Driver, Winchester. General discussion.

3. Vocal Solo—Earl R. Cartwright, Portland. Appointment of Nominating Committee to report in "General Business."
4. Paper—"Influences That Have Determined Methods of Science Instruction"—Jesse W. Hubbard, Anderson. Discussion led by C. H. Drybread, Hartford City.
5. Paper—"Manual Training for Girls in the Nineteenth Century?"—Mrs. Mary Davies, Indianapolis. General Discussion.
6. Paper—"What May Fairly be Expected of Our High School Graduate, as to His Qualifications in History"—Dr. Andrew Stephenson, DePauw University. General Discussion. General Business. Adjournment.

S. B. MCCracken, *President*, Elkhart.
Miss M. BROWN, *Secretary*, Greencastle.

ENGLISH SECTION.

THURSDAY, DECEMBER 29, 2:00 P. M.—1. Paper—"Methods of Teaching Shakespeare"—Prof. H. T. Stevenson, State University. Discussion led by Mrs. Emma Mont McRae, Purdue University.

FRIDAY, DECEMBER 30, 9:30 A. M.—Paper—"How can Composition be Most Effectually Taught in the High School"—Miss Frances Perry, Indianapolis Training School. Discussion led by Mr. E. O. Holland, Anderson High School.

CHARLES S. THOMAS, *President*, Bloomington.
Miss MINTA ALLEN, *Secretary*, Anderson.

CLASSICAL SECTION.

THURSDAY, DECEMBER 29, 2:00 P. M.—"The Present Status of the Study of Greek"—Prof. Marianna Brown, Earlham College.

"The Influence of Translation Upon the Student's English"—Mr. Chester T. Lane, Ft. Wayne.

"Roman Names"—Dr. Harold W. Johnston, Indiana University.

"What is the Best Method of Acquiring a Vocabulary"—Mr. Amos C. Maple, Winchester. General Discussion by the Section.

Miss MARY STUBBS, *President*, Richmond.
Miss CORA BENNETT, *Secretary*, Marion.

MATHEMATICAL SECTION.

TUESDAY, DECEMBER 27, 2:00 P. M.—1. Arithmetic for the Common Schools of Indiana, from the Standpoint of :—

- (a) "The Grades"—Supt. J. F. Haines, Noblesville.
- (b) "The High School"—E. Fiske Allen, Industrial Training School, Indianapolis.
- (c) "The College"—Prof. Alfred M. Kenyon, Purdue University.

2. "Some Recent Developments in Modern Mathematics"—Prof. Ernest W. Rettger, Indiana State University.

Ample time will be allowed for the discussion of each of these papers.

A. S. HATHAWAY, *President*, Terre Haute.

MISS AMELIA PLATTER, *Secretary*, Indianapolis.

J. C. TRENT, *Chairman Executive Committee*, Indianapolis.

PRIMARY SECTION.

THURSDAY, DECEMBER 29, 2:00 P. M.—"In Beginning Primary Reading Shall the Thought be Prominent and the Symbol Incidental or the Symbol Prominent and the Thought Incidental"—Miss Jessie Montgomery, Ft. Wayne. Discussion, Miss Anna Pitts, Peru; Miss Lida Cline Brook, Anderson. General Discussion.

"Discipline in Primary Grades as a Preparation for Citizenship"—Miss Anna Brochhausen, Indianapolis. Discussion, Mrs. Harriet Farrel Case, Muncie; Miss Martha Jewett, Evansville. General Discussion.

MRS. E. E. OLCOTT, *President*, Charlestown.

MRS. SARAH E. TARNEY-CAMPBELL, *Secretary*, Anderson.

MISS LENA BOARD, *Assistant Secretary*, Jeffersonville.

CHILD-STUDY—ROUND-TABLE.

THURSDAY, DECEMBER 29, 2:00 P. M.—1. Opening Address, by the President.

2. Habits of Work and Methods of Study of High School Pupils—Superintendent N. C. Johnson, Franklin.
3. Child-Study Abroad—Dr. Ernest Lindley, Bloomington.
4. Child-Study from the Standpoint of the County Superintendent—County Superintendent A. A. Hughart, Valparaiso.
5. Miscellaneous Business.

FRIDAY, DECEMBER 30, 9:30 A. M.—1. Reports of work done in schools and local clubs in Indiana:—The State Normal School, Miss Carrie Browder; The Northern Indiana Normal School, Prof. G. W. Neet; Tippecanoe County, Miss Flora Roberts; Starke County, Scott Guyer; Porter County, Superintendent A. A. Hughart; Hobart, Superintendent A. R. Hardesty; Terre Haute, Miss Alice Moudy; Brookville, Superintendent Noble Harter.

2. Parents' Meetings, Superintendent R. A. Ogg.
 3. The Educational Significance of the Personal Allegiance of Pupils to Teachers—Discussion opened by Superintendent W. C. Belman.
- Adjournment.

SANFORD BELL, *President*, Bloomington.

HOWARD SANDISON, *Secretary*, Terre Haute.

SECTION OF READERS AND ELOCUTIONISTS.

THURSDAY, DECEMBER 29, 2:00 P. M.—1. Paper—"Interpretation and Entertainment Exemplified"—Mr. T. J. McAvoy, University of Indiana, Indianapolis.

2. Paper—"The Nature, Use, and Abuse of the Sounding Board of the Voice"—Wm. E. Adams, Fort Wayne. General Discussion.

FRIDAY, DECEMBER 30, 9:00 A. M.—3. Paper—"Elocution in the High School"—Francis Carmody, Notre Dame, Ind. General Discussion.

4. Paper—"Twenty-five Years of College Oratory"—E. E. Griffith, State University, Bloomington. General Discussion.

Questions for answer and discussion should be handed to Secretary at close of first session.

QUESTIONS FOR DISCUSSION.

"What is the Value of Debate in Teaching Oratory?" "How Shall We Teach Vocal Expression?" "How Shall We Develop the Speaking Voice?" "How Shall We Teach Oral Reading?" Adjournment.

T. J. MCAVOY, *President*.

E. P. TRUEBLOOD, *Secretary and Treasurer*.

INDIANA LIBRARY ASSOCIATION.

TUESDAY, DECEMBER 27th, 9:30 A. M.—President's Address. Reports of Officers and Committees.

"Certain Essentials of Library Equipment"—Mrs. Lucius B. Swift, Indianapolis.

"Co-operative Book Collecting"—William E. Henry, State Librarian. Appointment of Committees.

TUESDAY, DECEMBER 27th, 2:00 P. M.—"A Unique Library"—George L. Cottman, Irvington.

"The Library in Its Relation to Other Educational Forces."—

"To the Public School"—Supt. Elmer C. Jerman, New Point.

"To the College"—Miss Leila Garrett, Hanover College.

"To the Study Club"—Mrs. H. G. Fetter, Peru.

"To the Church"—Rev. Albert J. Brown, Indianapolis.

WEDNESDAY, DECEMBER 28th, 9:00 A. M.—Library Legislation:—"What We Need and How to Get It"—I. L. A. Committee Report.

Representing Union of Literary Clubs, Miss Merica Hoagland, Fort Wayne. Representing the Trustees, Hon. J. R. Voris, Bedford. Representing the Teachers, Miss Kittie E. Palmer, Franklin.

Reports of Committees. Election of Officers.

After each paper, or series of papers, opportunity will be given for questions and discussion. Adjournment.

J. C. LEACH, *President*, Kokomo.

ALBERT FAUROT, *Secretary*, Terre Haute.

TRUSTEES' SECTION.

TUESDAY, DECEMBER 27th, 9:30 A. M.—Welcome Address—Thomas Taggart. Response by Chairman, B. F. Johnson.

"An Ideal Teacher"—Mrs. Emma Mont. McRae, Purdue University.

TUESDAY, DECEMBER 27th, 2:00 P. M.—"Our Common Schools; Their Relation to the College and University"—Prof. C. H. Hall, of Franklin College.

WEDNESDAY, DECEMBER 28th, 9:30 A. M.—"Good Roads and High Land Tax" *vs.* "Poor Roads and Low-Land Tax, and Their Relation to the Concentration of Schools"—Governor James A. Mount.

WEDNESDAY, DECEMBER 28th, 2:00 P. M.—"Township System of Caring for the Poor"—C. S. Grout, Secretary General Charity Organization Society, Indianapolis.

General Discussion. Adjournment.

B. F. JOHNSON, *President*, Fowler.

JAMES D. BALL, *Secretary*, Colburn.

COUNTY SUPERINTENDENTS' SECTION.

FIRST SESSION.

TUESDAY, DECEMBER 27th, 2:00 P. M.—1. "What Shall be Done with the Graduates from the Common Branches?"—W. S. Gibbons, Superintendent Fulton County. Discussed by H. E. Coe, Superintendent DeKalb County; Ellis A. Hutchens, Superintendent Hamilton County; Frank E. Cooper, Superintendent Lake County. General Discussion. Music—Pupils of Broadway Colored High School, Madison.

2. "Needed School Legislation"—W. F. Landes, Superintendent Marion County. Discussed by E. McFarland, Superintendent Martin County; W. O. Baker, Superintendent Morgan County; C. F. McIntosh, Superintendent Owen County. General Discussion. Miscellaneous Business.

SECOND SESSION.

WEDNESDAY, DECEMBER 28th, 9:00 A. M.—Music—Pupils of Broadway Colored High School, Madison.

3. "How May the County Superintendent Accomplish Most for His Schools?"—Robt. W. Stine, Superintendent Wells County. Discussed by Chas. S. Royce, Superintendent Ripley County; Charles A. Robertson, Superintendent Crawford County; J. E. Payne, Superintendent Jackson County. General Discussion. Music—Pupils of Broadway Colored High School, Madison.
4. "Libraries for Rural Communities"—W. E. Henry, State Librarian. Discussed by R. H. Harney, Superintendent Boone County; W. B. Walkup, Superintendent Montgomery County; Chas.

Greathouse, Superintendent Posey County. General Discussion
Miscellaneous Business.

L. H. SCOTT, *President*, New Albany.

L. H. HAMILTON, *Secretary*, Rensselaer.

COLLEGE ASSOCIATION.

FRIDAY, DECEMBER 30, 10:00 A. M.—1. Reports, Appointment of Committees and General Business.

2. Paper—"Science in the College Curriculum"—Prof. W. J. Karslake, Butler College. Discussion opened by Prof. L. J. Rettger, Normal School.

3. Annual Address of the President—"A Forgotten Factor in Pedagogy."

FRIDAY, DECEMBER 30, 2:00 P. M.—1. Paper—"Ethics of the College Curriculum"—President C. L. Mees, Rose Polytechnic Institute, Terre Haute. Discussion opened by President G. S. Burroughs, Wabash College.

2. Paper—"Legal Education"—Prof. W. P. Rogers, Indiana University. Discussion opened by ———, DePauw University.

3. Paper—"Dissipation of Energy in College Life"—President C. W. Lewis, Moore's Hill College. Discussion opened by ———, Vincennes University. Miscellaneous Business. Adjournment.

W. T. STOTT, *President*, Franklin.

ANDREW STEPHENSON, *Secretary*, Greencastle.

ACADEMY OF SCIENCE.

WEDNESDAY, DECEMBER 28, 8:00 P. M.—Meeting of the Executive Committee.

THURSDAY, DECEMBER 29, 9:00 A. M.—General Session.

THURSDAY, DECEMBER 29, 2:00 P. M.—Sectional Meetings.

THURSDAY, DECEMBER 29, 7:00 P. M.—President's Address.

FRIDAY, DECEMBER 30, 9:00 A. M.—General Session followed by Sectional Meetings.

FRIDAY, DECEMBER 30, 2:00 P. M.—General Session.

C. A. WALDO, *President*, LaFayette.

G. W. BENTON, *Secretary*, Indianapolis.

MUSIC SECTION.

THURSDAY, DECEMBER 29, 2:00 P. M.—Address of President. Appointment of Committees.

Paper—"School Music and the Grade Teacher"—Miss Helen Place.
General Discussion. Report of Committees.

Paper—"The Teachers' Meeting"—L. Foster Hitte. Discussion. Election of Officer.

FRIDAY, DECEMBER 30, 2:00 P. M.—Topics for General Discussion. (a) "How Shall Monotones be Treated?" (b) "The Value of Interval Practice in all Grades Above the Second Year." (c) "Music in the Public Schools of Indiana." (d) "The Supervisors of Music." (e) "The Supervisor's Duty to Teachers." (f) "The Pitch-Pipe, Beating Time." (g) "Tone Production in the Primary Grades." Adjournment.

J. S. BERGEN, *President*, La Fayette.

J. M. BLACK, *Secretary*, Washington.

WILLIAM MILES, *Chairman Executive Committee*, Ft. Wayne.

THE CITY SUPERINTENDENTS' MEETING.

The ninth annual meeting of the town and city superintendents, held in Indianapolis, November 10, 11 and 12, was one of the most interesting and beneficial meetings ever held by that organization. More than one hundred superintendents were present throughout the session.

The program as published was carried out with but one slight exception. The papers were upon educational questions that touch closely every school. They were, therefore, received by the association with unusual interest and earnestness. The papers were followed by discussions that were participated in by many of the most prominent school men of the state. A distinctive mark of the discussions was that the participants were honestly seeking solutions of the problems in question and had no pet theories to advance. Each one was willing to give and receive any help that was asked or offered.

The paper and the discussions that followed the papers on "Manual Training" by Superintendents Mott and Emmerich brought out the following points:

We ought to have more of manual training in our schools. It should be distinctly understood that a manual training school is not a trade teaching school, but that it has its place in the system because of its formative value. We are already working somewhat in that line, in that we have writing, drawing, kindergarten, and physical culture.

Superintendent Millis advocated taking the kindergarten into the public school system for two reasons. For the sake of the kindergarten itself, lest it becomes onesided. For the sake of the public schools that the education of the child be continuous and that the public school may share the enthusiasm of the kindergarten.

The discussions on "How to Get and Keep Boys in the High School," and "Electives in the High School," brought out the facts that our system is deficient in not having liberally educated teachers in the grammar and lower grades and that we fail to introduce certain subjects at the proper time

in the development of the child. The result of the first defect is that the teachers have not the power to create in their pupils a desire to continue a school course even through the high school. The second defect makes a distinct, artificial break in school work between the grades and high school. The majority of pupils can not bridge over this break.

The association paid a fitting tribute to the memory of their late co-worker, Wm. P. Shannon.

It was Resolved, That in view of the fact that the term of office of Hon. David M. Geeting, as Superintendent of Public Instruction is about to expire, we think it fitting to express in this formal way our appreciation of his valuable service to the schools of the state which have magnified the office which he has so efficiently filled in the eyes of many of the teachers and school officers. We have found him ever ready to render any assistance in his power in the settlement of difficult questions which have arisen in the management of our own individual systems of schools. His face has seldom been missing from educational gatherings in any part of the state. His words of encouragement and kindly sympathy have been an inspiration and the whole school system has received an educational uplift from the administration of his office.

It was also Resolved, That we reaffirm the position that this body assumed two years ago in regard to the necessity of certain reforms in the school system of the state, viz :

First. The establishment of a minimum school term of six months.

Second. The requirement of an educational qualification for city, town and county superintendents.

Third. The revision of the law concerning teachers' licenses to the end that all licenses shall be valid throughout the state.

Fourth. The provision of high school privileges for graduates of rural schools.

The "Course of Study for City and Town Schools," which has been under discussion for four or five years was presented by the committee in printed form, and was adopted. It was explained that superintendents were not expected to follow it blindly, but to modify it as conditions might require.

R. I. Hamilton, W. D. Weaver and W. R. Snyder were appointed a committee on legislation. Officers of the association were elected, as follows: President, T. A. Mott, Richmond; vice-president, W. A. Millis, Attica; secretary, Miss Frances Benedict, Worthington; treasurer, H. G. Woody, Greencastle.

B. F. MOORE, *President*.

FRANCES BENEDICT, *Secretary*.

THE oldest educational weekly, *New York School Journal*, has reduced its price from \$2.50 to \$2.00 per annum. This is very low for a good weekly paper.

THE writer recently had the pleasure of looking in upon the Tri-State Normal at Angola. He found everything in excellent order, as usual. The school is well attended, well organized, and *well taught*. Thoroughness is

one of its chief characteristics. If you wish to learn more about it, write to its president, L. M. Sniff.

ANGOLA sustains a lecture course—and a good one. This year there were six lectures and entertainments costing \$900. The course ticket was sold for \$1.00. The sale of tickets was advertised to begin at eight o'clock one morning. Long before time to begin the sale, pupils were in line and before noon over five hundred of the tickets were taken. Money enough to pay for the entertainments was taken in before the first lecture was given. What town in the State can beat this record?

STEBEN COUNTY held its institute November 7-11, the date on which this county has held its institute for many years. It is held between the two months fall term of school and the winter term. The schools in this county run from six to eight months. The teachers deserve better pay than they usually receive which averages about twenty-five dollars. The principal instructor in the institute was H. R. Pattengill, of Michigan, who was recalled for a second year's work. He is well liked. The County Association occupied one evening and there were lectures on three other evenings, all well attended. Homer Dilworth is making a good superintendent.

GALVESTON.—This is a town of 693 people. Last year we organized a township high school, having a three years' course. The people became so deeply interested in the school that they organized themselves into a school association for a period of three years. Each member of this organization is pledged to pay annual dues of \$1.00 or more as he elects. The object of the association is to secure and insure a full eight months' term of school, and all their money is turned to the support of the schools at the expiration of the regular public tax support. Last year we did the regular work of the grades and carried the three years of the high school with four teachers. This year we are doing the same work—but much better—with a force of five teachers, Miss Ida Galbreath, a graduate of Lombard University, having been secured to assist in the high school work. For myself I have endeavored to strengthen the teaching of Latin, Science, and Mathematics, by attending the summer quarter of Chicago University. We have regular teachers' meetings weekly, at which we study our opportunities and the Teachers' Reading Circle Books. We expect to add the fourth year of high school work next year.

H. M. STOUT, Principal.

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PERSONAL.

JOHN PETER is principal at Lapel.

THOMAS SMITH directs the school work at Summitville.

E. D. ALLEN has been in charge of the schools at Pendleton for many years.

J. W. WYANDT still continues to give satisfaction as superintendent of the Angola schools.

GEORGE W. SCHWARTZ, who advertises on another page that he will teach book-keeping and business forms by mail, was for five years a teacher in the public schools of Perry county, Indiana.

J. W. WALKER, well-known to the teachers of this State as the representative of the American Book Company, has changed his residence from Vincennes to No. 1732 College Avenue, Indianapolis.

B. F. CLARK, of Chicago, who has for the past ten years been engaged in the Teachers' Agency work, will continue the business under the title of "The Clark Teachers' Agency," Pullman Building, Chicago.

C. J. ALBERT has been for many years known to the readers of the JOURNAL in connection with his teachers' agency. Under the title "The Albert Teachers' Agency," he will open a new office in the Central Music Hall, Chicago, where he will be glad to meet teachers or hear from them.

PROF. J. B. WISELY, of the chair of English literature in the State Normal School, was married November 23, at Bridgehampton, Long Island, to Miss Alice Cook Wright. Miss Wright until last June was instructor of physical culture in the State Normal. THE JOURNAL extends congratulations.

PRESIDENT F. EDWARD SEARING, of the Mankato, Minn., Normal School, died suddenly at St. Paul on October 22, while attending the meeting of the State Normal Board. He had retired at his hotel the previous night in apparent health. When he awoke at six o'clock in the morning he felt uncomfortable and rang for the bell boy to call President Lord of the St. Cloud Normal, who summoned the house physician, but at 7:30 he had passed away. Mr. Searing was highly respected and greatly beloved by the educators of the northwest, and his loss will be seriously felt.

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SCHOOL BOARDS contemplating changes can learn the address of the best Western and Eastern teachers, willing to change places, by addressing **Orville Brewer**, manager of the Teachers' Co-operative Association, 101 Auditorium Bldg., Chicago. We can assure all who write of confidence and honorable treatment. 2-ft.

HOMESEEEKERS' EXCURSIONS.—October 4th and 18th November 1st and 15th, December 6th and 20th, 1898. On the above dates, the C., H. & D., Railway will run Homeseekers' Excursions to Alabama, Florida, Kentucky, Louisiana, Minnesota, the Carolinas, Tennessee, Texas and many other states and territories at a rate of one regular first-class fare, plus \$2.00 for the round trip. For information call on your nearest C., H. & D., Ticket Agent.

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1856

Indiana School Journal

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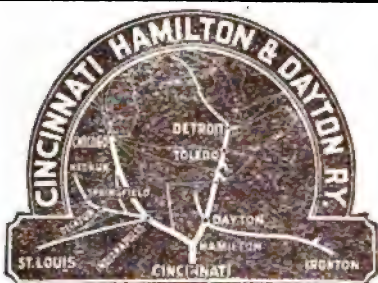
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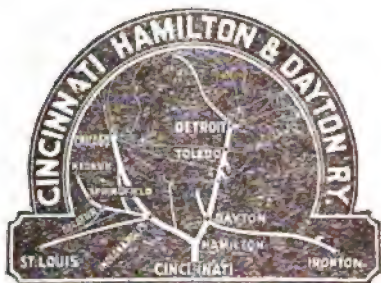
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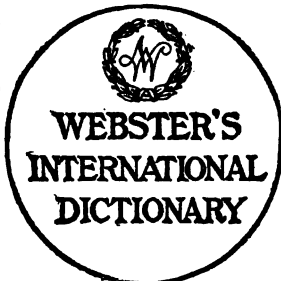
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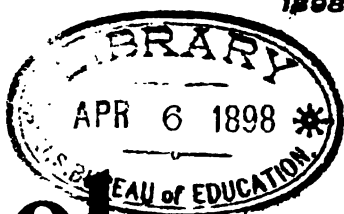
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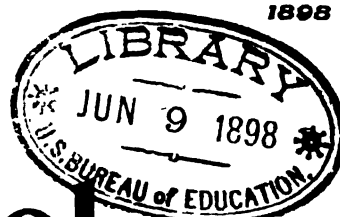
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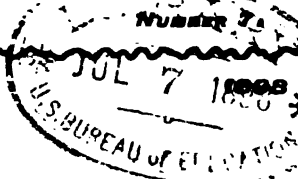
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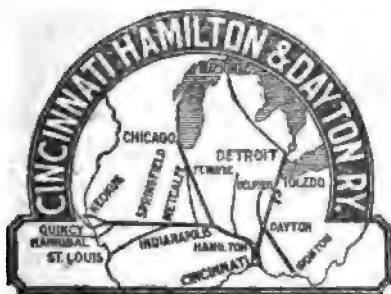
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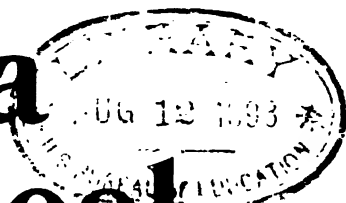


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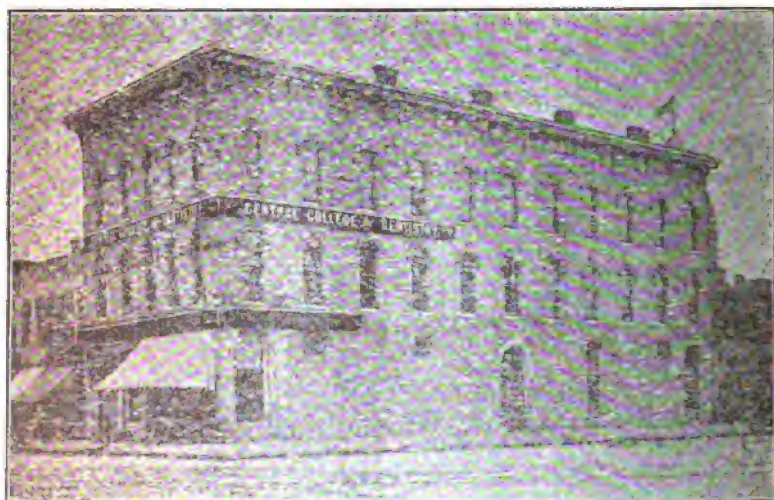
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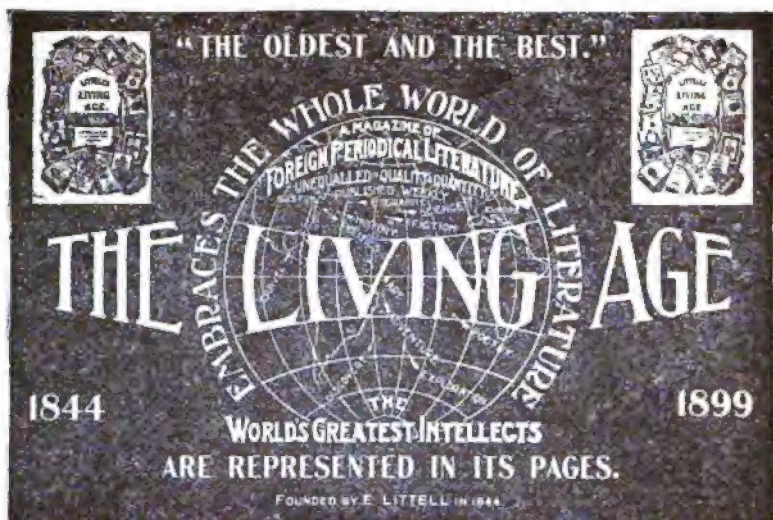
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